

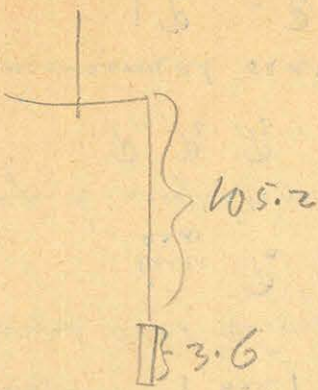
Ms 5106/6-9. Eötvös L. neves jegyzetei

4 kötet. dok.
HUNGARICA ACADEMIA
KÖNYVTÁRA BUDAPESTI
17. 12. 17. SZ.

V. C. G. S.

Ms. 5106/6

Preisung



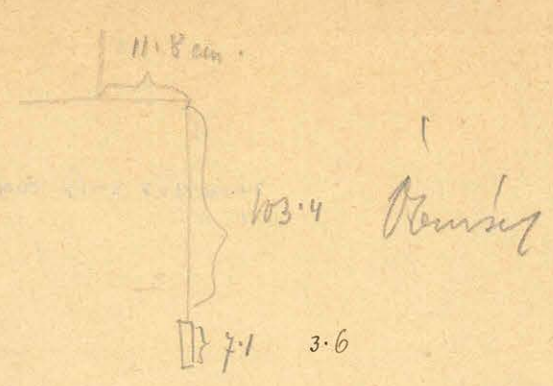
Merz versipal

7.4
 11.6
 8.1
 10.9
 8.9
 10.3
 9.2
 10.1
 9.5
 42.9
 10.72
 43.7
 8.62
 Exensuf: $105 + 8.62$
 $= 9.67$
 Merz versipal

10.2
 13.6
 10.8
 13.1
 11.2
 12.7
 11.7
 39.4
 13.13
 43.9
 10.98
 Exensuf: $10.98 + 1.07$
 $= 12.05$
 Merz versipal: 25.25 gr.

7.8
 11.5
 8.1
 11.1
 8.6
 24.5
 22.6
 8.17
 11.36
 Merz versipal: 25.27 gr.

Exensuf: $8.17 + 1.56 = 9.73$
 0.02 gr. 2.32 outgr. 20.0
 0.06 outgr. $8.6 : 232 = 0.03$
 Preisung = 25.27 gr.



Preisung Planung

Merz versipal & larval

8.2
 11.2
 8.2
 11.2
 11.0
 18.0
 8.5
 10.8
 10.8
 8.7
 10.6
 25.4
 8.37
 8.7
 10.6
 10.6
 43.6
 10.90
 Exensuf: $8.37 + 1.26$
 $= 9.63$
 Merz versipal: $6.13 + 2.86$
 $= 8.99$
 Merz versipal: 12.0
 6.1
 11.9

6.1
 11.8
 6.2
 18.4
 6.13
 11.7
 43.6
 11.85
 Merz versipal: 25.90 gr.

12.7
 17.7
 13.1
 17.1
 13.6
 16.8
 Exensuf: $12.50 + 2.24$
 $= 14.74$

13.9
 16.3
 14.2
 67.5
 12.50
 16.98
 Merz versipal: 25.85 gr.

0.05 gr. 5.45 outgr. 20.0
 0.64 6.57 20.1
 Planung = 25.895 gr.

szorozat alatt a következő határértékek

értékek:

$$\lim_{n \rightarrow \infty} \prod_{\mu=0}^n a_{\mu} = \prod_{\mu=0}^{\infty} a_{\mu}$$

Ez a művelet az ∞ -ig terjedő sorozatok körében az, amikor egy ∞ -ig terjedő határérték művelet végre nem végezhető. Azaz az ∞ -ig terjedő sorozatok körében az, amikor δ , melyik meghatározható legyen egy pozitív ϵ számjegy mellett, hogy

$$\left| 1 - \prod_{\mu=n}^{n+k} a_{\mu} \right| < \delta \quad (I)$$

lehet $n > \nu$, bármely pozitív ϵ számjegy mellett. Az (I) művelet által ∞ -ig terjedő sorozatok körében az, amikor δ , melyik meghatározható legyen egy pozitív ϵ számjegy mellett, hogy k minden pozitív ϵ számjegy mellett

$$|P_{n+k} - P_n| < \epsilon$$

mind az ∞ -ig terjedő sorozatok körében

$$\left| 1 - \frac{P_{n+k}}{P_n} \right| < \delta$$

ha $n > \nu$. Vagy

$$|P_{n+k} - P_n| < |P_n| \delta$$

$$\Rightarrow |P_{n+k} - P_n| + |P_n| < |P_n| (1 + \delta)$$

$$\text{de } |P_{n+k} - P_n| + |P_n| \geq |P_{n+k}|$$

tehát annál inkább

$$|P_{n+k}| < |P_n| (1 + \delta)$$

Ha most

$$\epsilon \geq |P_n| (1 + \delta)$$

akkor minden $|P_n|$ után következő $|P_{n+k}|$

csak ϵ felül határ alatt marad

$$\text{vagyis } |P_{n+k}| < \epsilon$$

mind az ∞ -ig terjedő sorozatok körében

$$\lim_{n \rightarrow \infty} P_n$$

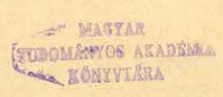
vagy ∞ -ig terjedő sorozatok körében az, amikor

$$P_1, P_2, P_3, \dots, P_n, \dots$$

mind sorozat szabályszerű, vagyis hogy k minden pos. egész értékre

$$|P_{n+k} - P_n| < \delta$$

ha $n > \nu$,



$$\begin{matrix} \dots & \dots & \dots \\ W_{n+1} + W_{n+2} + \dots & P_{n+1} - P_n + P_{n+2} - P_{n+1} + \dots & |P_{n+k} - P_n| \end{matrix}$$

743.8 209 32015 98235 971 29469 02536 106.0 254.6
 764.2 203 30750. 98235 176 52886 95220 02536 106.0 254.6
 744.4

248.0 150 17609 98228 962 29380 88229 2.6 255.6
 263.0 151 60971 98228 962 29380 88229 2.6 255.6
 0.592 145 16137 98228 962 29380 88229 2.6 255.6
 5.822 541 7191 98228 962 29380 88229 2.6 255.6

434.0 345.8 53882 98532 962 29380 24502 175.8 268.2
 88.2 334.3 52414 98532 962 29380 24502 175.8 268.2
 477.5 41425 52414 98532 962 29380 24502 175.8 268.2

175.6 164.5 21612 98222 973 29513 92104 83.4 259.0
 9.571 160.1 21912 98222 973 29513 92104 83.4 259.0
 1.041 160.1 20439 98222 973 29513 92104 83.4 259.0
 0.081 180.0

208.6 99.9 99952 98988 977 29601 20356 50.5 259.1
 9.802 99.9 99952 98988 977 29601 20356 50.5 259.1
 5.805 99.9 99952 98988 977 29601 20356 50.5 259.1
 6.012 99.9 98945 98988 977 29601 20356 50.5 259.1

0211

0.451

МАГЯР
 HUNGARIAN
 KÖNYVTÁRA
 HUNGARIAN
 LIBRARY

6.1

0.657×18

$\frac{416}{916}$

41.3

0.936

$\frac{48}{80.1}$

38.5

79.3

52.5

191.8

5.6

0.056×18

$\frac{448}{80.1}$

1.7

2.88

8.68

85.6 334.4 57815 98233 971 29469 22206 171.2 256.8
 423.0 322.2 57815 98233 971 29469 22206 171.2 256.8
 0.224 322.2 57815 98233 971 29469 22206 171.2 256.8
 95.3

299.9 842 92488 99015 972 29623 63165 42.8 252.1
 215.2 842 92488 99015 972 29623 63165 42.8 252.1
 0.862 842 91803 99015 972 29623 63165 42.8 252.1
 298.0

929.8 343.9 57815 98601 968 29409 24240 174.2 255.1
 8.929 343.9 57815 98601 968 29409 24240 174.2 255.1
 85.9 333.0 57244 98601 968 29409 24240 174.2 255.1
 418.9

336.6 336.0 159.5 20276 98841 974 29535 90841 80.8 255.2
 176.3 176.5 159.5 20276 98841 974 29535 90841 80.8 255.2
 3.771 176.5 159.5 20276 98841 974 29535 90841 80.8 255.2
 3.138 331.8 155.3 21161 98841 974 29535 90841 80.8 255.2

208.7 92.1 96426 98950 976 29597 66829 46.6 255.3
 200.8 92.1 96426 98950 976 29597 66829 46.6 255.3
 210.9 92.1 96426 98950 976 29597 66829 46.6 255.3

223.6 254.3 167.0 204.4 299.2 345.0
 0.222 245.2 317.2 272.0 217.2 189.1
 274.7 204.5 272.0 212.0 293.4 122.1
 249.2 249.2 181.9 271.8 252.1 0.592
 708.0 304.9 272.0 271.8 252.1 246.3

26.8: 8.7 = 0.934
 2583
 970
 9861
 1090

28.7: 1.93 = 14.8
 193
 940
 272
 1680

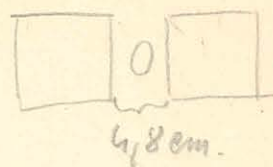
28.7
 26.8
 163.1

felvétel 13. oldalról lefelé való címzés

4h. Om. Műsem 240,2

Olvasmányok odatérvi (Hannai körkörös)

10h. 45m. 212,9
55 212,9



Műsem odatérvi

1h. Om. 266,7
5m 266,7

Olvasmányok odatérvi

4h. Om. 239,2

Matatávolság 170,0

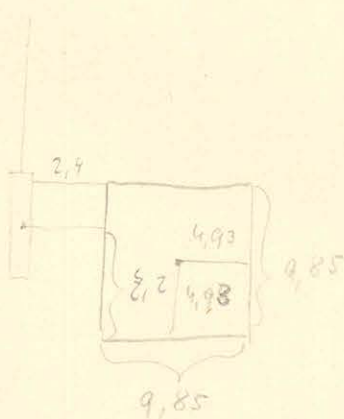
Magas körre 165 - 336

Körkörös alsó lejtőjének távolsága a felső mérték 116,2 cm.

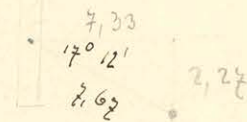
A felső alsó mérték távolsága a felső mérték 112,5 cm.

A lejtő alsó mérték távolsága a felső mérték 7,1 cm.

Hannai körkörös sűrű: 10645 gr.



HAGYAR TUDOMÁNYOS AKADÉMIA KÖNYVTÁRA



$$\begin{aligned} 52,27 &= 0,3560 \\ 12,33 &= 0,8651 \\ \hline &0,4909 - 1 \end{aligned}$$

$$\begin{aligned} &0,2120 \\ &1,2302 \end{aligned}$$

$$\begin{aligned} &5,153 \\ &53,729 \\ \hline &58,882 \\ &1,76998 \\ &0,88499 \end{aligned}$$

$$27 \frac{25,895 \cdot 10645}{58,882} \cdot 0,955 \cdot 11,8 = 2 \frac{54,1}{1700}$$

$$\tau = 0,227$$

Jan 11 Rippeparter

Atmenet 246 m 4h. 41m. 29.2
 39.2
 49.4

4h. 42m 4.15 - 444.3 452.4 *fordul*
 21.9
 441.2
 75.1
 768.0
 78.2
 464.9
 31.3
 461.2
 74.3
 458.2
 37.5
 455.8
 40.2
 452.9
 43.3
 450.0
 46.2
 447.2
 49.0
 444.3
 51.9
 441.2
 54.2
 439.0

4917
 983
 1475
 1967
 3442

263 lengt bot $T = 9.834$
 $D = 0.99394$
 ~~$d = 0.0006129$~~
 $d = 0.0006625$

4h. 46m. 17.2 *fordul*
 27.5
 37.2
 47.4
 57.1

Atmenet 248. 5h. 20m. 51.1
 1.0
 10.9

295.2 *fordul*
 201.0
 294.8
 201.4
 294.2
 202.0
 293.2
 262.6
 293.1
 203.1
 292.6
 203.2
 292.0
 204.2
 291.3
 204.8
 290.9 *96.1*
 16.5
 26.3
 36.1

5h. 23m 76.5
 34.4
 42.08

.41m 37.93

2460

- d 2497.9 = $\frac{56.5}{452.4}$

5h. 23m 42.08
 4.15

5h. 24m.

Almanak 748 a

5h. 51m
52m.

45.5
 55.3
 5.2

 762.2
 733.2
 762.3
 733.4
 762.2
 733.2
 762.0
 733.9
 761.9
 733.0
 761.8
 733.1
 761.6
 733.3
 761.4
 733.4
 761.2
 733.2
 761.0

5h. 55 - 148
 20 42,08

457 kugait $T = 9.801$
 $D = 0.99366$
 ~~$\alpha = 0.0006491$~~
 $\alpha = 0.0006331$

55 49.1
 59.1
 96m. 9.0

$\alpha = 1893.7$
 $e = \frac{26.1}{86.5}$

31m 32.72

4h. 41 29.2 K

5h. 56. 9.0

1h. 14 39.3

3600

840

39.3

4489.3 : 9.83 = 455.2

3932

5483

4915

5580

4915

6650

4479.3 : 9.82 = 456.1

3928

5513

4910

6030

5892

1380

4479.3 : 9.77 = 458.4

3908

5273

4885

8280

2876

4640

4479.3 : 452 : 9.801

4113

3663

3056

4620

6

452.4 $\bar{d}^{449} = 26.0$

452.4 = 2.65552

2160.1.41492

0.25945-2

442.25945 : 449 = 0.992232

4041

4365

4041

3249

3143

1064

898

1665

1348

3180

$\bar{d} = -0.002263$

$\bar{d} = 0.44138$

63228

80360-3

$\bar{d} = 0.99172$

81233-4

5h. 51m. 45.5

56 9.0

4m. 23.5

263.5 : 17.9 = 14.72

243

205

199

60

9.82

9.82

9.82

9.82

9.82

9.82

9.82

4h. 41m. 29.2
 4h. 46m. 57.1
 5m. 28.4
 327.4 : 33 = 9.92
 $\frac{292}{368}$
 $\frac{292}{80}$

$2586.4 : 9.85 = 262.6$
 $\frac{1920}{6164}$
 $\frac{5910}{2540}$
 $\frac{1980}{5200}$

$2586.4 : 263 = 9.834$
 $\frac{2302}{2194}$
 $\frac{2104}{900}$
 $\frac{289}{1110}$

4h. 41m. 29.2 K
 5h. 24m. 26.1
 43 6.4

$2586.4 : 9.8 = 263.9$
 $\frac{196}{626}$
 $\frac{588}{384}$
 $\frac{294}{900}$

$452.4 \cdot 255 = 96.1$
 $1452.4 = 2.65552$
 $196.1 = 1.98282$
 $\frac{2280}{0.32820-1}$

$254.32820 : 255 = 0.998361$
 $\frac{2295}{2482}$
 $\frac{2295}{1882}$
 $\frac{1285}{922}$
 $\frac{265}{1520}$
 $\frac{1530}{400}$

$5D = 0.002639$
 $38D = 0.42144-3$
 $\frac{63888}{0.28366-3}$
 $8D = 0.99283$
 $\frac{29093-4}{}$

5h. 20m. 51.1
 24m. 36.1
 3m. 45.0
 $275.0 : 23 = 9.78$
 $\frac{202}{180}$
 $\frac{161}{190}$

MAGYAR
 TUDOMÁNYOS AKADÉMIA
 KÖNYVTÁRA

291.3 86.5 93202 99298 995 29994 63208 43.4 242.9
 204.8 86.1 93500
 290.9

January 16 Jump allis

21.9

45 53.5
56.3
59.2
~~42~~

$$\begin{array}{r} 3.2 \\ \hline 3.2 \\ 0.35 \times 3.4 \\ \hline 1.05 \\ 1.10 \\ \hline 1.190 \end{array}$$

46 25.3
27.5
30.8
73.5

$$\begin{array}{r} 3.2 \\ 0.37 \times 3.4 \\ \hline 1.11 \\ 1.48 \\ \hline 1.258 \end{array}$$

47m 8.2
11.4
15.0
395.1

$$\begin{array}{r} 4.0 \\ 0.4 \times 3.4 \\ \hline 13.6 \end{array}$$

$$\begin{array}{r} 3.9 \\ 0.039 \times 11 \\ \hline 39 \\ 0.429 \end{array}$$

47m 41.6
45.5
49.4
116.3

$$\begin{array}{r} 4.1 \times 3.4 \\ \hline 13.6 \\ 1.394 \end{array}$$

$$\begin{array}{r} 4.2 \\ 0.042 \times 11 \\ \hline 42 \\ 0.46 \end{array}$$

$$\begin{array}{r} 2.4 \\ 2.4 \\ 4.8 \\ 0.48 \times 2.4 \\ \hline 9.6 \\ 19.2 \\ \hline 1.152 \end{array}$$

$$\begin{array}{r} 2.2 \\ 2.2 \end{array}$$

$$\begin{array}{r} 4.3 \\ 4.3 \\ \hline 4.7 \end{array}$$

48 17.8
22.1
26.2
271.2

$$\begin{array}{r} 5.4 \\ 0.54 \times 1.75 \\ \hline 800 \\ 825 \\ \hline 0.9450 \end{array}$$

$$\begin{array}{r} 2.8 \\ 2.3 \\ 3.0 \\ 1.5 \\ 0.15 \times 2.3 \\ \hline 115 \\ 0.345 \end{array}$$

264.6

$$\begin{array}{r} 2.8 \times 1.75 \\ \hline 350 \\ 1400 \end{array}$$

$$\begin{array}{r} 3.4 \\ 6.8 \\ 0.68 \times 3.6 \\ \hline 201 \\ 402 \\ \hline 2412 \end{array}$$

$$\begin{array}{r} 0.56 \times 1.75 \\ \hline 1050 \\ 885 \\ \hline 0.980 \end{array}$$

49 74.6
79.3
74.3
352.9

$$\begin{array}{r} 3.2 \\ 0.16 \times 2.3 \\ \hline 138 \\ 0.368 \end{array}$$

$$\begin{array}{r} 3.8 \\ 2.6 \times 3.6 \\ \hline 238 \\ 456 \\ \hline 2836 \end{array}$$

$$\begin{array}{r} 4.3 \\ 2.2 \\ \hline 3.0 \end{array}$$

$$\begin{array}{r} 0.6 \times 1.75 \\ \hline 1.050 \end{array}$$

$$\begin{array}{r} 4 \\ 8.0 \times 3.6 \\ \hline 288 \end{array}$$

40

50m 57.2
1.2
5.4
148.3

$$\begin{array}{r} 3.1 \\ 0.62 \times 1.75 \\ \hline 1050 \\ 350 \\ \hline 1.088 \end{array}$$

36.4
37.1
39.4
338.5

$$\begin{array}{r} 3.5 \\ 3.0 \\ 3.3 \\ 1. \\ 0.12 \times 2.3 \\ \hline 161 \\ 0.4 \end{array}$$

Függő állás január 14
 átlagvetés 284. 6h. 17m. 54.4
 58 16.1
 40.1

87.0
 430.0
 100.0
 418.1
 111.4
 407.6

20m. 55.5
 21m. 16.1
 40.1

302 29m. 33.6
 262 27.2
 272 41.2
 222 29m. 55.8
 302 3.1
 302 30m. 16.0
 262 20.3
 272 24.2

MAGYAR
 TUDOMÁNYOS AKADÉMIA
 KÖNYVTÁRA

forint
 327.0
 198.9
 323.9
 261.9
 321.0
 204.2
 318.2
 207.2
 315.8
 209.2
 313.2
 217.0
 311.4

242 29m. 26.2 +10
 282 32.2 +10
 282 47.2 +10
 242 53.5 +10
 242 36m. 8.4 -10
 282 14.2 -10

162	6h.	48m.	37.6	
162			58.4	
762		49m.	19.5	

782.3 *fulst*

781.6 *Kinoralt*

742.9

781.0

743.2

780.2

744.3

779.5

745.0

779.0

745.2

778.3

746.2

777.2

746.9

777.1

747.4

55a. 56.3

56a. 12.2

38.0

10 = 2 untyren

I. arched 200.

1892 January

Verticalis allos

dituliskan

36
41.1 d = 33.9

233.9 = 1.536200

541.1 = 1.613842

0.916358 - 1

35.9 16358 - 36.36 = 0.997625

324
351
324
236
252
238
216
220
252
180

36 log 10 d = 0.997625

d = 0.99466

d = e^{-at}

5d = 0.992625 - 1

= -0.002375

23d = 0.3664230 - 3

52e = 0.6228842 - 1

0.2286388 - 3

ST =

230.9
271.8
509
19.95
20.5
250.4

pendulu pinter:

271.9	41.1	6138			
230.8	41.0	6122	9990	0.998	
271.8	40.8	6107	9979	0.995	
231.0			9957	990	
	40.4	6064			995
271.4	40.2	6042	9972		995
231.2	40.0	6021	9979		997
271.2	39.9	6010	9989		997
231.3	39.8	5999	9989		990
271.7	39.4	5955	9956		995
231.7	39.2	5933	9978		998
270.9	39.1	5922	89		998
231.8	39.0	5911	89		995
270.8	38.8	5888	77		990
232.0	38.4	5843	55		995
270.4	38.2	5821	78		995
232.2	38.0	5798	87	=	997
270.2	37.9	5786	88		997
232.3	37.8	5775	89		998
270.1	37.8	5775	65		992
232.6	37.5	5740	65		993
269.9	37.3	5717	67		992
232.9	37.0	5682	65		992
269.7	36.8	5658	76		995
233.1	36.8	5658	77		995
269.5	36.6	5635	77		995
233.2	36.4	5611	76		995
269.2	36.4	5611	76		997
233.4	36.3	5599	88		997
269.0	36.3	5599	64		992
233.7	36.0	5563	76		995
268.9	35.8	5539	76		995
233.9	35.8	5539	73		994
268.8	35.6	5502	76		995
234.0	35.6	5502	76		995
268.6	35.3	5478	76		995
234.2	35.3	5478	87		997
268.3	35.2	5465	76		995
234.4	35.2	5465	76		995
	35.0	5441	86		997
	34.9	5428	86		997
	34.8	5416	88		997
	34.8	5416	62		991
	34.6	5378	88		997
	34.4	5366	62		991
	34.4	5366	62		991
	34.1	5328	74		994
	33.9	5302			

log arched 279.2

Jan 8

fujiyepi ailes

atunent 250 m 2h. 20m.

200

21.30

250

32.20

43.30

77.3

414.0

336.7

79.2

412.0

81.8

400.0

84.0

407.8

86.1

405.8

88.2

403.2

90.3

401.3

92.3

306.9

399.2

250

2h. 23m.

37.2

250

48.1

250

58.2

43m.

~~37.2~~

250

43m.

49.00

147 kuyt bil

T = 10.820

D = 0.99385

a = 0.0005699

MAYAR
YUDOMANTOS AKASIA
KONSTARA

321.9

170.8

321.0

171.2

320.1

172.6

319.2

173.4

318.4

174.1

317.6

175.0

316.8

175.8

315.9

176.2

315.1

177.4

137.7

150

47m.

14.2

10 = 20 m

3h.	6m.	3h.
770	46.8	
770	48.6	
730	50.2	

782.3
 709.3
 782.1
 709.8
 781.8
 710.2
 781.4
 710.8
 781.0
 711.0
 780.6
 711.3
 780.2
 711.8

68.4

2500. 3h. 9m. 31.2

256	29m.	44.8
246		47.0
236		48.8

263.8
 278.3
 263.5
 278.6
 263.2
 278.8
 263.0

34.2

246 3h. 31m. 17.3

392 kuyuböl $T = 10.7903$
 $D = 0.99415$
 $d = 0.0005336$

271 kuyuböl $T = 10.8029$
 $D = 0.99410$
 $d = 0.0005461$

211.3
 211.8
 211.55
 280.2
 68.65
 34.3
 280.2
 245.9

1.8
 0.13
 68

211.3 68.9 8382 9969 993 2995 5382 34.6 245.9
 280.2 68.4 8351
 211.8

3h. 6m. 49.9
 9m. 30.9
 2m. 42.0

2h. 47m. 24.0
 3 9m. 31.2
 22 12.2

$162.0 : 15 = 10.800$
 15
 120
 176

~~$161.2 : 15 = 10.747$
 112
 165
 50
 60
 100~~

2h. 20m. 43.3
 3h. 9m. 30.9
 48 48.0

$336.2 \div 269 = 68.4$
 $336.2 = 2.52724$
 $684 = 1.83506$
 $0.30822 - 1$

2880
 48.2
 $2928.2 : 10.82 = 2620.5$
 2164
 3632
 6492
 7524
 5800

$268.30822 : 269 = 0.992428$
 2421
 2620
 2421
 1998
 1883
 1152
 1026
 362
 538
 2240

$336.2 \div 390 = 34.2$
 $336.2 = 2.52724$
 $334.2 = 1.53403$
 $00679 - 1$

$2927.2 : 281 = 10.8015$
 281
 2132
 2168
 400
 281
 1290

$\bar{d} = 0.99470$

$389.00679 : 39 = 0.992453$
 351
 380
 351
 290
 273
 136
 156
 207
 195
 129

$\bar{d} = 0.02562$
 $\bar{d} = 0.40858 - 3$
 63778
 $88080 - 3$
 $\bar{d} = 1.02350$
 0.72830

$2927.6 : 281 = 10.8029$
 281
 2126
 2168
 800
 542
 2580
 2439

$4229.8 : 392 = 10.8903$

2h. 20 43.3
 3h. 31m. 13.1
 1h. 10 29.8

$4229.8 : 391.8 = 10.8986$
 391.8
 31280
 31336
 27419
 38610
 36258
 33550
 31336
 22340

392
 3098
 2244
 3540
 3528
 1200

3600
 600
 29.8
 $4229.8 : 10.8 = 391.8$
 3244
 989
 972
 128
 108
 800

$\bar{d} = 0.002542$
 $\bar{d} = 0.40603$
 63778
 $86825 - 3$
 $\bar{d} = 1.04001$
 $\bar{d} = 32824 - 4$

2h. 20m. 43.3
 23m. 37.2
 2m. 53.9

175.9: 16 = 10.99

$$\begin{array}{r} 16 \\ \underline{159} \\ 144 \\ \underline{144} \\ 150 \end{array}$$

43m. 49.0
 47 14.2
 3m. 25.2

205.2: 19 = 10.80

$$\begin{array}{r} 19 \\ \underline{152} \\ 182 \\ \underline{182} \\ 79 \end{array}$$

2h. 20m. 43.3
 47 14.2
 26 30.9

7560
 30.9

1590.9: 10.9 = 145.9

109

$$\begin{array}{r} 500 \\ \underline{436} \\ 649 \\ \underline{545} \\ 1040 \end{array}$$

178.9: 12 = 10.3
 509

176.8 138.4 1411
 315.1 132.2 1389 9928 995 2999 8415 69.4 246.4
 172.4

43m. 49.2a.
 47 14.0
 3m. 25.8

204.8: 19 = 10.78

$$\begin{array}{r} 19 \\ \underline{148} \\ 133 \\ \underline{133} \\ 150 \end{array}$$

2h. 20m. 43.4
 47 14.0
 26 30.6

1560
 30.6

1590.6: 10.8 = 147.3

108

$$\begin{array}{r} 510 \\ \underline{432} \\ 886 \end{array}$$

756
 300

1590.6: 147 = 10.820

147

$$\begin{array}{r} 1206 \\ \underline{1176} \\ 300 \\ \underline{294} \\ 60 \end{array}$$

336.8 $\cdot 155 = 132.2$

$\int 336.8 = 2.528243$
 $\int 132.2 = 2.138934$

0.611691-1

144.61169: 145 = 0.997322

1305

$$\begin{array}{r} 1411 \\ \underline{1305} \\ 1061 \\ \underline{1015} \\ 466 \end{array}$$

435

$$\begin{array}{r} 319 \\ \underline{290} \\ 290 \end{array}$$

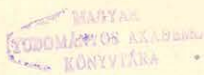
$\int D = -0.002638$

$\int 2628 = 0.42781-3$

63778-1
 0.79000-3

$\int D = 1.03423$

$$\begin{array}{r} 25580-4 \end{array}$$



városok eszéi (Győr város alatti)
 1891. augusztus 2. este. Ész 3^h 30^m lot
 Fogva. felállítás megfigyelés

100	6	16	36.8	
150		17	46.0	69.2
100		19	15.0	89.0
355		25	—	ford
250		31	—	ford
65		40.5	—	ford
240				

$$290 : 165 = 175$$

$$\begin{array}{r} 1250 \\ 950 \\ \hline 125 \end{array} \quad \begin{array}{r} 175 \\ 179.4 \end{array}$$

$$175 : 290 = 0,603$$

$$\frac{175}{100}$$

hura hura nek hurokja a centia
 hurokja lot: 299 cm.
 I ha hurokja a hura hurokja 759.5

24m. 55

per argumentum 3 an

4h 10 2.632

6.232

150:155 = 110

1531

2028
 40.3
 5800:155 = 3

5.017

290 228.5

1730:155 = 12

620 238

350 260

3230:144 = 2

76.5m
 760.8
 76.16m

173 234.3
 323 245.8
 77 228.5
 2028
 760.8

1761
 1790
 9971
 8062
 8033
 8195
 8166

M 5106/6

355
 65 290
 240 175

240:160 = 181
 130
 20 174

256
 171.0
 85.5
 1709

12 328.8
 33 241.7
 43 244.4
 53 258.7
 63 266.2
 73 274.7
 83 283.2
 93 291.7
 103 300.2
 113 308.7
 123 317.2
 133 325.7
 143 334.2
 153 342.7
 163 351.2
 173 359.7
 183 368.2
 193 376.7
 203 385.2
 213 393.7
 223 402.2
 233 410.7
 243 419.2
 253 427.7
 263 436.2
 273 444.7
 283 453.2
 293 461.7
 303 470.2
 313 478.7
 323 487.2
 333 495.7
 343 504.2
 353 512.7
 363 521.2
 373 529.7
 383 538.2
 393 546.7
 403 555.2
 413 563.7
 423 572.2
 433 580.7
 443 589.2
 453 597.7
 463 606.2
 473 614.7
 483 623.2
 493 631.7
 503 640.2
 513 648.7
 523 657.2
 533 665.7
 543 674.2
 553 682.7
 563 691.2
 573 699.7
 583 708.2
 593 716.7
 603 725.2
 613 733.7
 623 742.2
 633 750.7
 643 759.2
 653 767.7
 663 776.2
 673 784.7
 683 793.2
 693 801.7
 703 810.2
 713 818.7
 723 827.2
 733 835.7
 743 844.2
 753 852.7
 763 861.2
 773 869.7
 783 878.2
 793 886.7
 803 895.2
 813 903.7
 823 912.2
 833 920.7
 843 929.2
 853 937.7
 863 946.2
 873 954.7
 883 963.2
 893 971.7
 903 980.2
 913 988.7
 923 997.2
 933 1005.7
 943 1014.2
 953 1022.7
 963 1031.2
 973 1039.7
 983 1048.2
 993 1056.7
 1003 1065.2
 1013 1073.7
 1023 1082.2
 1033 1090.7
 1043 1099.2
 1053 1107.7
 1063 1116.2
 1073 1124.7
 1083 1133.2
 1093 1141.7
 1103 1150.2
 1113 1158.7
 1123 1167.2
 1133 1175.7
 1143 1184.2
 1153 1192.7
 1163 1201.2
 1173 1209.7
 1183 1218.2
 1193 1226.7
 1203 1235.2
 1213 1243.7
 1223 1252.2
 1233 1260.7
 1243 1269.2
 1253 1277.7
 1263 1286.2
 1273 1294.7
 1283 1303.2
 1293 1311.7
 1303 1320.2
 1313 1328.7
 1323 1337.2
 1333 1345.7
 1343 1354.2
 1353 1362.7
 1363 1371.2
 1373 1379.7
 1383 1388.2
 1393 1396.7
 1403 1405.2
 1413 1413.7
 1423 1422.2
 1433 1430.7
 1443 1439.2
 1453 1447.7
 1463 1456.2
 1473 1464.7
 1483 1473.2
 1493 1481.7
 1503 1490.2
 1513 1498.7
 1523 1507.2
 1533 1515.7
 1543 1524.2
 1553 1532.7
 1563 1541.2
 1573 1549.7
 1583 1558.2
 1593 1566.7
 1603 1575.2
 1613 1583.7
 1623 1592.2
 1633 1600.7
 1643 1609.2
 1653 1617.7
 1663 1626.2
 1673 1634.7
 1683 1643.2
 1693 1651.7
 1703 1660.2
 1713 1668.7
 1723 1677.2
 1733 1685.7
 1743 1694.2
 1753 1702.7
 1763 1711.2
 1773 1719.7
 1783 1728.2
 1793 1736.7
 1803 1745.2
 1813 1753.7
 1823 1762.2
 1833 1770.7
 1843 1779.2
 1853 1787.7
 1863 1796.2
 1873 1804.7
 1883 1813.2
 1893 1821.7
 1903 1830.2
 1913 1838.7
 1923 1847.2
 1933 1855.7
 1943 1864.2
 1953 1872.7
 1963 1881.2
 1973 1889.7
 1983 1898.2
 1993 1906.7
 2003 1915.2
 2013 1923.7
 2023 1932.2
 2033 1940.7
 2043 1949.2
 2053 1957.7
 2063 1966.2
 2073 1974.7
 2083 1983.2
 2093 1991.7
 2103 2000.2
 2113 2008.7
 2123 2017.2
 2133 2025.7
 2143 2034.2
 2153 2042.7
 2163 2051.2
 2173 2059.7
 2183 2068.2
 2193 2076.7
 2203 2085.2
 2213 2093.7
 2223 2102.2
 2233 2110.7
 2243 2119.2
 2253 2127.7
 2263 2136.2
 2273 2144.7
 2283 2153.2
 2293 2161.7
 2303 2170.2
 2313 2178.7
 2323 2187.2
 2333 2195.7
 2343 2204.2
 2353 2212.7
 2363 2221.2
 2373 2229.7
 2383 2238.2
 2393 2246.7
 2403 2255.2
 2413 2263.7
 2423 2272.2
 2433 2280.7
 2443 2289.2
 2453 2297.7
 2463 2306.2
 2473 2314.7
 2483 2323.2
 2493 2331.7
 2503 2340.2
 2513 2348.7
 2523 2357.2
 2533 2365.7
 2543 2374.2
 2553 2382.7
 2563 2391.2
 2573 2399.7
 2583 2408.2
 2593 2416.7
 2603 2425.2
 2613 2433.7
 2623 2442.2
 2633 2450.7
 2643 2459.2
 2653 2467.7
 2663 2476.2
 2673 2484.7
 2683 2493.2
 2693 2501.7
 2703 2510.2
 2713 2518.7
 2723 2527.2
 2733 2535.7
 2743 2544.2
 2753 2552.7
 2763 2561.2
 2773 2569.7
 2783 2578.2
 2793 2586.7
 2803 2595.2
 2813 2603.7
 2823 2612.2
 2833 2620.7
 2843 2629.2
 2853 2637.7
 2863 2646.2
 2873 2654.7
 2883 2663.2
 2893 2671.7
 2903 2680.2
 2913 2688.7
 2923 2697.2
 2933 2705.7
 2943 2714.2
 2953 2722.7
 2963 2731.2
 2973 2739.7
 2983 2748.2
 2993 2756.7
 3003 2765.2
 3013 2773.7
 3023 2782.2
 3033 2790.7
 3043 2799.2
 3053 2807.7
 3063 2816.2
 3073 2824.7
 3083 2833.2
 3093 2841.7
 3103 2850.2
 3113 2858.7
 3123 2867.2
 3133 2875.7
 3143 2884.2
 3153 2892.7
 3163 2901.2
 3173 2909.7
 3183 2918.2
 3193 2926.7
 3203 2935.2
 3213 2943.7
 3223 2952.2
 3233 2960.7
 3243 2969.2
 3253 2977.7
 3263 2986.2
 3273 2994.7
 3283 3003.2
 3293 3011.7
 3303 3020.2
 3313 3028.7
 3323 3037.2
 3333 3045.7
 3343 3054.2
 3353 3062.7
 3363 3071.2
 3373 3079.7
 3383 3088.2
 3393 3096.7
 3403 3105.2
 3413 3113.7
 3423 3122.2
 3433 3130.7
 3443 3139.2
 3453 3147.7
 3463 3156.2
 3473 3164.7
 3483 3173.2
 3493 3181.7
 3503 3190.2
 3513 3198.7
 3523 3207.2
 3533 3215.7
 3543 3224.2
 3553 3232.7
 3563 3241.2
 3573 3249.7
 3583 3258.2
 3593 3266.7
 3603 3275.2
 3613 3283.7
 3623 3292.2
 3633 3300.7
 3643 3309.2
 3653 3317.7
 3663 3326.2
 3673 3334.7
 3683 3343.2
 3693 3351.7
 3703 3360.2
 3713 3368.7
 3723 3377.2
 3733 3385.7
 3743 3394.2
 3753 3402.7
 3763 3411.2
 3773 3419.7
 3783 3428.2
 3793 3436.7
 3803 3445.2
 3813 3453.7
 3823 3462.2
 3833 3470.7
 3843 3479.2
 3853 3487.7
 3863 3496.2
 3873 3504.7
 3883 3513.2
 3893 3521.7
 3903 3530.2
 3913 3538.7
 3923 3547.2
 3933 3555.7
 3943 3564.2
 3953 3572.7
 3963 3581.2
 3973 3589.7
 3983 3598.2
 3993 3606.7
 4003 3615.2
 4013 3623.7
 4023 3632.2
 4033 3640.7
 4043 3649.2
 4053 3657.7
 4063 3666.2
 4073 3674.7
 4083 3683.2
 4093 3691.7
 4103 3700.2
 4113 3708.7
 4123 3717.2
 4133 3725.7
 4143 3734.2
 4153 3742.7
 4163 3751.2
 4173 3759.7
 4183 3768.2
 4193 3776.7
 4203 3785.2
 4213 3793.7
 4223 3802.2
 4233 3810.7
 4243 3819.2
 4253 3827.7
 4263 3836.2
 4273 3844.7
 4283 3853.2
 4293 3861.7
 4303 3870.2
 4313 3878.7
 4323 3887.2
 4333 3895.7
 4343 3904.2
 4353 3912.7
 4363 3921.2
 4373 3929.7
 4383 3938.2
 4393 3946.7
 4403 3955.2
 4413 3963.7
 4423 3972.2
 4433 3980.7
 4443 3989.2
 4453 3997.7
 4463 4006.2
 4473 4014.7
 4483 4023.2
 4493 4031.7
 4503 4040.2
 4513 4048.7
 4523 4057.2
 4533 4065.7
 4543 4074.2
 4553 4082.7
 4563 4091.2
 4573 4099.7
 4583 4108.2
 4593 4116.7
 4603 4125.2
 4613 4133.7
 4623 4142.2
 4633 4150.7
 4643 4159.2
 4653 4167.7
 4663 4176.2
 4673 4184.7
 4683 4193.2
 4693 4201.7
 4703 4210.2
 4713 4218.7
 4723 4227.2
 4733 4235.7
 4743 4244.2
 4753 4252.7
 4763 4261.2
 4773 4269.7
 4783 4278.2
 4793 4286.7
 4803 4295.2
 4813 4303.7
 4823 4312.2
 4833 4320.7
 4843 4329.2
 4853 4337.7
 4863 4346.2
 4873 4354.7
 4883 4363.2
 4893 4371.7
 4903 4380.2
 4913 4388.7
 4923 4397.2
 4933 4405.7
 4943 4414.2
 4953 4422.7
 4963 4431.2
 4973 4439.7
 4983 4448.2
 4993 4456.7
 5003 4465.2
 5013 4473.7
 5023 4482.2
 5033 4490.7
 5043 4499.2
 5053 4507.7
 5063 4516.2
 5073 4524.7
 5083 4533.2
 5093 4541.7
 5103 4550.2
 5113 4558.7
 5123 4567.2
 5133 4575.7
 5143 4584.2
 5153 4592.7
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 5173 4609.7
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 5203 4635.2
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 5233 4660.7
 5243 4669.2
 5253 4677.7
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 5273 4694.7
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 5303 4720.2
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 5333 4745.7
 5343 4754.2
 5353 4762.7
 5363 4771.2
 5373 4779.7
 5383 4788.2
 5393 4796.7
 5403 4805.2
 5413 4813.7
 5423 4822.2
 5433 4830.7
 5443 4839.2
 5453 4847.7
 5463 4856.2
 5473 4864.7
 5483 4873.2
 5493 4881.7
 5503 4890.2
 5513 4898.7
 5523 4907.2
 5533 4915.7
 5543 4924.2
 5553 4932.7
 5563 4941.2
 5573 4949.7
 5583 4958.2
 5593 4966.7
 5603 4975.2
 5613 4983.7
 5623 4992.2
 5633 5000.7
 5643 5009.2
 5653 5017.7
 5663 5026.2
 5673 5034.7
 5683 5043.2
 5693 5051.7
 5703 5060.2
 5713 5068.7
 5723 5077.2
 5733 5085.7
 5743 5094.2
 5753 5102.7
 5763 5111.2
 5773 5119.7
 5783 5128.2
 5793 5136.7
 5803 5145.2
 5813 5153.7
 5823 5162.2
 5833 5170.7
 5843 5179.2
 5853 5187.7
 5863 5196.2
 5873 5204.7
 5883 5213.2
 5893 5221.7
 5903 5230.2
 5913 5238.7
 5923 5247.2
 5933 5255.7
 5943 5264.2
 5953 5272.7
 5963 5281.2
 5973 5289.7
 5983 5298.2
 5993 5306.7
 6003 5315.2
 6013 5323.7
 6023 5332.2
 6033 5340.7
 6043 5349.2
 6053 5357.7
 6063 5366.2
 6073 5374.7
 6083 5383.2
 6093 5391.7
 6103 5400.2
 6113 5408.7
 6123 5417.2
 6133 5425.7
 6143 5434.2
 6153 5442.7
 6163 5451.2
 6173 5459.7
 6183 5468.2
 6193 5476.7
 6203 5485.2
 6213 5493.7
 6223 5502.2
 6233 5510.7
 6243 5519.2
 6253 5527.7
 6263 5536.2
 6273 5544.7
 6283 5553.2
 6293 5561.7
 6303 5570.2
 6313 5578.7
 6323 5587.2
 6333 5595.7
 6343 5604.2
 6353 5612.7
 6363 5621.2
 6373 5629.7
 6383 5638.2
 6393 5646.7
 6403 5655.2
 6413 5663.7
 6423 5672.2
 6433 5680.7
 6443 5689.2
 6453 5697.7
 6463 5706.2
 6473 5714.7
 6483 5723.2
 6493 5731.7
 6503 5740.2
 6513 5748.7
 6523 5757.2
 6533 5765.7
 6543 5774.2
 6553 5782.7
 6563 5791.2
 6573 5800.7
 6583 5808.2
 6593 5816.7
 6603 5825.2
 6613 5833.7
 6623 5842.2
 6633 5850.7
 6643 5859.2
 6653 5867.7
 6663 5876.2
 6673 5884.7
 6683 5893.2
 6693 5901.7
 6703 5910.2
 6713 5918.7
 6723 5927.2
 6733 5935.7
 6743 5944.2
 6753 5952

Erdőre nézve a föld mélyénél alakjának feltétele talán

~~hossz~~
 ~~$a = 637,740,000 \text{ c.}$~~
 ~~$b = 635,529,800 \text{ c.}$~~

hosszú méret

$$a = 637,726,500 \text{ c.}$$

$$b = -635,529,800 \text{ c.}$$

$$d = \frac{a-b}{a} = \frac{1}{289,5}$$

$$\varphi = 47 \frac{1}{2}^\circ \quad \frac{1}{\rho_1} = 0,00000001570 \frac{1}{\text{c.}} \quad \frac{1}{\rho_1} - \frac{1}{\rho_2} = 5^{-12}$$

$$\frac{1}{\rho_2} = 0,00000001565 \frac{1}{\text{c.}}$$

Clairaut formulája

$$g_\varphi = g_0(1 + c)$$

$$\frac{g_\varphi - g_0}{g_0} = \frac{5}{2} \frac{a\omega^2}{g_0} - d$$

$$g_\varphi = g_0(1 + c \sin^2 \varphi)$$

$$g_0 = 9,78,07$$

$$c = \frac{g_\varphi - g_0}{g_0}$$

$$g_0 \quad 0,005664 \quad 0,005240$$

$$g_\varphi = g_0 \left(1 + \left(\frac{5a\omega^2}{2g_0} - \frac{a-b}{a} \right) \sin^2 \varphi \right)$$

$$0,005209$$

csúszó pályáján lépés méret $g d\varphi = d\xi$

$$\frac{d\xi}{d\varphi} = \frac{1}{\rho} \frac{d\xi}{d\varphi} = \frac{g_0}{\rho} 2c \sin \varphi \cos \varphi$$

MAGYAR
TUDOMÁNYOS AKADÉMIA
KÖNYVTÁRA

$$d = \frac{g_0}{g} 2c \sin \varphi \cos \varphi l =$$

$$d = \frac{l}{\rho} \left(\frac{5a\omega^2}{2g_0} - \frac{a-b}{a} \right) \sin \varphi \cos \varphi$$

$$\bar{\omega} = \frac{a-b}{a}$$

$$\varphi = \frac{a\omega^2}{2g_0}$$

$$d = \frac{l \sin \varphi \cos \varphi}{\rho} \left(\frac{5a\omega^2}{2g_0} - \bar{\omega} \left(\frac{a-b}{a} \cdot \frac{g_0}{a\omega^2} - \frac{1}{2} \right) \right)$$

$$\text{Sisältö} = \frac{1}{90} m \frac{a^2}{r^5} \quad \Delta m = 40' m \frac{a^3}{r^5}$$

$$\Delta \text{ kappeli} = \frac{1}{20} m \frac{ac}{r^5} \quad 180' m \frac{ac}{r^5}$$

~~hyy~~ ~~m = \frac{4}{3} \rho^3~~
 $\text{hyy } b = 2,5 \quad \text{pöytä } 20 \rho^3 \quad a = r.$

tihti sisältöön hyyntä = $200 \frac{\rho^3}{r^3}$
 α hyyntä on 6 seuraavaksi
niin 1'

$$\varphi = 45^\circ \quad ac = r^2 \sin \varphi \cos \varphi = \frac{r^2}{2} \sin 2\varphi.$$

$$\text{pöytä } b = 1 \quad \rho$$

$$\beta = 180' \cdot 4 \cdot \frac{\rho^3}{r^3}$$

$$\beta = 720' \cdot \frac{\rho^3}{r^3}$$

A potential

$$U = V + \frac{1}{2} \omega^2 R^2$$

Laplace equation $\Delta U = \Delta V + 2\omega^2$

or $\Delta U = 2\omega^2$

$$\omega = \frac{2\pi}{86164}$$

$$\omega^2 = 0,000000005318$$

$\frac{\partial^2 U}{\partial x^2}$ & $\frac{\partial^2 U}{\partial y^2}$ etc. of coordinate system

2. for the solution of the

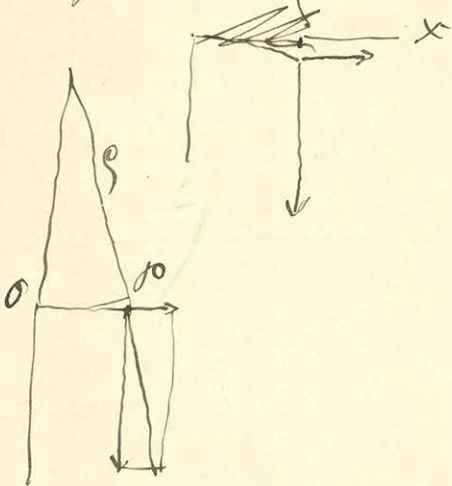
of the mixed partial derivatives

$$\frac{\partial^2 U}{\partial x^2} \quad \frac{\partial^2 U}{\partial y^2} \quad \frac{\partial^2 U}{\partial z^2}$$

$$\frac{\partial U}{\partial x \partial y} \quad \frac{\partial U}{\partial y \partial z} \quad \frac{\partial U}{\partial z \partial x}$$

check physical relationships

ξ & η are the coordinates of the point



$$\frac{\partial^2 U}{\partial x^2} \xi = -\frac{\eta}{\rho}$$

$$\frac{\partial^2 U}{\partial y^2} \eta = -\frac{\xi}{\rho'}$$

$$\frac{\partial^2 U}{\partial x^2} = -\frac{1}{\rho} g \quad \frac{\partial^2 U}{\partial y^2} = -\frac{1}{\rho'} g$$

$$\frac{\partial^2 U}{\partial z^2} = \frac{dg}{dz} = \left(\frac{1}{\rho} + \frac{1}{\rho'}\right) g + 2\omega^2$$

for a mixed partial derivative of the potential U with respect to x and z



equation ρ is the mixed partial derivative of the potential U with respect to x and z

$$\rho = \frac{\partial^2 U}{\partial z \partial x}$$

$$\text{very small } \frac{\partial U}{\partial z} = g$$

$$\frac{\partial^2 U}{\partial z \partial x} = \frac{\partial g}{\partial x}$$

$$\frac{\partial^2 U}{\partial z \partial y} = \frac{dg}{dy}$$

$\frac{\partial^2 U}{\partial x \partial y}$ a közepes értékes allásában valóban általánosan nulla
 értékű.

Mindenek közt csak a $\frac{\partial^2 U}{\partial x^2}$ vagy $\frac{\partial^2 U}{\partial y^2}$ értékét kell megvizsgálni.
 A második derivált a közepes érték mellett csak egy felületen
 van értékes, a görbék irányában csak az ellipszoidok
 értékei vannak bekalkulálva — amelyek az irány megnevezéséből.

1) Lásd a csomópontok milyek az ellipszoidok irányában —
 irányított irányok felvételével — ellipszoidok.

$$\begin{cases} d_1 \\ d_2 \\ d_3 \\ d_4 \end{cases}$$

$$\sqrt{\frac{d_1^2 + d_2^2 + d_3^2 + \dots}{n}}$$

$$\left(\frac{d_1 + d_2 + \dots}{n} \right)^2$$

$$\frac{n(d_1^2 + d_2^2 + d_3^2 + \dots)}{d_1 + d_2 + d_3 + \dots} = \dots$$

$$f = 1.5^{\circ}$$

$$z = 880$$

$$1 \sin \delta = 0.829683 - 1$$

$$1 a = 8.804641$$

$$1 \frac{z}{a} = 0.998495 - 1$$

$$1 \sin^2 \delta = 0.659366 - 1$$

$$1 b = 8.803136$$

$$1 \left(\frac{z}{a}\right)^2 = 0.996990 - 1$$

$$1 \left(\frac{z}{a}\right)^3 = 0.001505$$

1 km

$$1 \sin^3 \delta = 0.2229623$$

$$1 \cos^2 \delta = 0.45642$$

$$1 p_1 = 0.998373 - 1$$

$$1 \sin^4 \delta = 0.867631 - 1$$

$$\frac{z^2}{a^2} \sin \delta = 0.53984$$

$$1 p_1^2 = 0.995119 - 1$$

$$1 \sin^5 \delta = 0.735262 - 1$$

$$p_1 = 0.99626$$

$$1 p_1^3 = 0.997559 - 1$$

$$1 \frac{z^3}{a^3} = 0.996990 - 1$$

$$1 \frac{z^2}{a^2} = 0.198369 - 8$$

$$0.732252 - 1$$

$$0.195928 - 8$$

$$1 a = 8.804631$$

$$1 p_1^4 = 0.997559 - 1$$

$$1 b^2 = 16.606272$$

$$0.498369 - 4$$

$$1 \frac{z}{b^2} = 2.198359 - 10$$

$$1 \frac{z}{p_1} = 0.195928 - 4$$

$$1 a = 6.804641$$

$$1 p_1^{\frac{1}{2}} = 0.999186 - 1$$

$$1 b^2 = 13.606272$$

$$1 a = \frac{3.804641}{0.194545 - 4} = 1 \frac{1}{p_2}$$

$$3.198369 - 10$$

$$1 a = 3.804641$$

$$\frac{1}{p_1} = 0.00015701 \frac{1}{\text{km}}$$

$$1 b^2 = 7.606272$$

$$\frac{1}{p_2} = 0.00015651 \frac{1}{\text{km}}$$

$$0.198369 - 10$$

$$\frac{1}{p_1} = 0.00000000570 \frac{1}{\text{km}}$$

$$\frac{1}{p_2} = 0.00000000565 \frac{1}{\text{km}}$$

$$\frac{g_0}{g_0} ; g_0^2 = 1072575 - 19$$

$$a - b = 2206700$$

$$1 g_0^2 = 2.99037$$

$$1 a - b = 6.34374$$

$$0.73538 - 12$$

$$1 a = 8.80464$$

$$1 a = 8.80464 - 0$$

$$0.53910 - 3$$

$$0.54002 - 3$$

$$225 = 0.39794$$

$$g_0 = g_p (1.002831) = 0.90$$

$$0.93796 - 3$$

$$1 g_0 = 2.99037$$

$$0.008669$$

$$1 a_1 = 0.00123$$

$$0.003460$$

$$2.99160$$

$$p_1 = 0.005209$$

$$g_0 = 980.85$$

$$1 \sin^2 \delta = 0.73526 - 1$$

$$0.45201 - 3$$

$$0.002831$$

Vizsgálat az épkészíthető tükör...

Lehető hirtelen...

Alkalmaz a fogás...

Eik csak
abba...

$$= \frac{K}{f} g \frac{\sin 2\delta}{2} \left(\frac{1}{\rho_1} - \frac{1}{\rho_2} \right) + mgl \sin \delta \alpha - mgl \cos \delta \beta$$

$$2 mgl (\sin \delta \alpha - \cos \delta \beta) = A$$

$$2 mgl (\cos \delta \alpha + \sin \delta \beta) = B$$

$$\sqrt{A^2 + B^2} = 2 mgl \sqrt{\alpha^2 + \beta^2}$$

$$= 2 mgl h \sqrt{\frac{\partial V}{\partial x_1} + \frac{\partial V}{\partial x_2}}$$

$$E = \frac{2 mgl h}{f} \frac{\partial V}{\partial x_1} = \frac{2 mgl h}{f} \frac{dy}{ds}$$

Charakter...

$$\frac{dy}{dy} = g_0 (1 + 0,00209 \sin^2 \varphi)$$

0. szintel $ds = g dy$ legyen.

$$\frac{dy}{ds} = \frac{1}{g} \frac{dy}{dy} = \frac{g_0 \cdot 0,00209 \sin^2 \varphi}{g}$$

$$\frac{dw}{dh} = \frac{0,00209 \sin^2 \varphi}{g}$$

$$\frac{dw}{dh} = 0,000\,000\,000\,008\,178 = 0,000\,00167$$

206 265" = 1

$$\frac{dy}{ds} = 0,000\,000\,008\,178$$

Lehet a méter...

h = 100

$$h \cdot \frac{dy}{ds} = 0,000\,000\,818$$

ha l = 20 m = 30 f = 5' abba.

$$E = 6000 \cdot 0,000\,000\,818 = 0,004908 = 17'$$

MAGYAR
TUDOMÁNYOS AKADÉMIA
KÖNYVTÁRA

Enk med jät mycket mer. o jag behövs det a
 för att jag mycket mer. —
 Hög all med a det a i det a.

$$\xi = \frac{m h \partial^2 V}{\tau \partial x \partial z}$$

$$\frac{\partial^2 V}{\partial x \partial z} = 3 \frac{h}{r^5} c a$$

ha $\frac{c a}{r^5} = \frac{1}{2}$ mm.

$$\xi = \frac{3 m h f. M}{2 \tau r^2}$$

$$\text{laggi } M = \frac{4}{5} \pi \sigma \rho^3$$

$$\xi = \frac{3 m h f. 4 \sigma \rho^3}{2 \tau r^2}$$

medant $\sigma = 1$

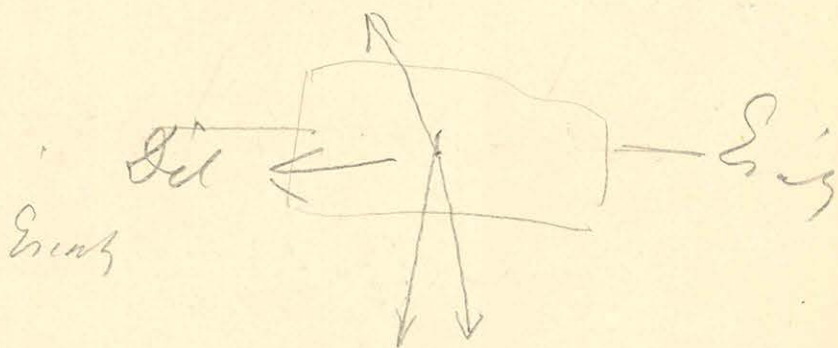
$$\xi = \frac{49.600.000 \cdot 5 \cdot \frac{2}{30 m} \rho^3}{2 \tau r^2}$$

$$\frac{49.600.000}{30 m} = \frac{1.653.333}{r^2} = 0,120 \frac{\rho^3}{r^2} = 2^\circ = 540'$$

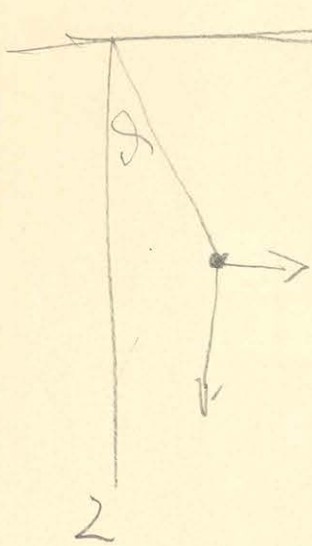
Lösning

Vidhan

af 200 lat Enk föli högt



Wegpunkt a festsitzendes Seil



Wegpunkt a festsitzendes Seil

~~Wegpunkt a~~

$$\frac{\partial V}{\partial z} = \frac{\partial V}{\partial z_0} + \frac{\partial V}{\partial z} \cos \alpha + \frac{dV}{dx} \sin \alpha$$

$$= \frac{\partial V}{\partial z_0} + \frac{\partial V}{\partial z} \cos \alpha$$

$$\frac{\partial V}{\partial z} = \frac{\partial V}{\partial z_0} + \frac{\partial V}{\partial z} \cos \alpha + \frac{\partial V}{\partial x} \sin \alpha$$

$$\frac{\partial V}{\partial x} = \frac{\partial V}{\partial x} \sin \alpha + \frac{\partial V}{\partial x} \cos \alpha$$

festsitzendes Seil

$$\frac{\partial V}{\partial z} \sin \alpha + \frac{\partial V}{\partial x} \cos \alpha$$

$$- m l \frac{\partial V}{\partial z} \sin \alpha - m l^2 \frac{\partial^2 V}{\partial z^2} \sin \alpha \cos \alpha - m l^2 \frac{\partial^2 V}{\partial x^2} \sin^2 \alpha$$

$$+ \frac{\partial V}{\partial x} + m l^2 \frac{\partial^2 V}{\partial x^2} \sin \alpha \cos \alpha + 2 m l^2 \frac{\partial^2 V}{\partial x \partial z} \cos^2 \alpha$$

$$- m l g \sin \alpha - m l^2 \frac{\partial^2 V}{\partial z^2} \sin \alpha \cos \alpha + m l^2 \frac{\partial^2 V}{\partial x^2} \cos^2 \alpha + m l^2 \frac{\partial^2 V}{\partial x \partial z} \frac{\cos \alpha}{2}$$

in Form

$$- m l g \sin \alpha - m l^2 \left(\frac{2}{z} + \frac{1}{x^2} \right) \frac{\sin \alpha}{2} - m l g \frac{1}{2} \frac{\sin \alpha}{z} + m l^2 \frac{\partial^2 V}{\partial x^2} \cos^2 \alpha$$

$$= - m l g \sin \alpha - m l^2 g \left(\frac{2}{z} + \frac{1}{x^2} \right) \frac{\sin \alpha}{2} + m l^2 \frac{\partial^2 V}{\partial x^2} \cos^2 \alpha$$

und man's ableiten + es anny

$$= - m g \sin \alpha - K g \left(\frac{2}{z} + \frac{1}{x^2} \right) \frac{\sin \alpha}{2} + K \frac{\partial g}{\partial x} \cos^2 \alpha$$

gegengig ersteinen bei $\sigma = 0$ $g \left(\frac{2}{z} + \frac{1}{x^2} \right) \frac{\sin \alpha}{2} = \frac{\partial g}{\partial x} \cos^2 \alpha$

$$\frac{1}{2} \frac{\partial g}{\partial z} = \frac{\partial g}{\partial x} \frac{\cos^2 \alpha}{\sin \alpha} = \frac{\partial g}{\partial x} \frac{\cos \alpha}{\sin \alpha} =$$

$$\varepsilon = \frac{\frac{dg}{dx} \rho}{g \frac{\rho}{g}} = \frac{dw}{dh} \frac{\rho}{g}$$

ha d a hulló $\frac{dw}{dh} \rho = 0,005209$

$$\varepsilon = 0,001736 = \text{hiveltet 6'}$$

irány eszakra:

mérésnek elvileg $\frac{dg}{dx} = 0,000000008$

214
156
470

$$g \left(\frac{2}{\rho} + \frac{2}{\rho} \right) = 0,0000047 \quad \text{hőrd} \quad \frac{41}{243000} = \rho.$$

0,00000470

lehat

~~$F = mg \sin \alpha - \frac{c}{2} k \sin 2\alpha$~~
~~nyg $\sin \alpha$ $\sin 2\alpha$~~

~~$F = mg \cos \alpha - c k \cos 2\alpha$~~

~~$T^2 = \pi^2 \frac{m}{k}$~~
 ~~$\frac{m}{k} = \frac{2}{g \sin \alpha} - \frac{2c}{k \sin 2\alpha}$~~

függő vízszintes ha $\alpha = 0$

$$= -\frac{c}{2} k \sin 2\alpha$$

ha $\alpha = 0$ egyenlet d' akkor α egy függő vízszintes

$$= -mg \sin \alpha' - \frac{c}{2} k \sin 2\alpha'$$

$$\text{egyenlet} \quad \sin \alpha' = -\frac{k}{mg} \frac{c}{2} \sin 2\alpha'$$

$$d' = -\frac{T^2}{\pi^2} \frac{c}{2} \sin 2\alpha'$$

ha $\alpha = 45^\circ$

$$d' = \frac{T^2}{\pi^2} \frac{c}{2} = \frac{T^2}{4200000}$$

ha $T = 100 \quad d' = \frac{1}{420}$

$T = 90 \quad d' = \frac{1}{4200}$

MAGYAR
TUDOMÁNYOS AKADÉMIA
KÖNYVTÁRA

2

$$\frac{a}{r} = \frac{a}{b} \cdot \frac{b}{r} = \sqrt{\frac{2}{h}} \cdot \frac{b}{r}$$

$$\frac{r}{b} = 0,21646$$

$$2 \frac{b^2}{a^2} = \beta \quad \frac{1}{2} \frac{a^2}{b^2} = \frac{1}{h} \quad \frac{a^2}{b^2} = \frac{2}{h} \quad \frac{a}{b} = \sqrt{\frac{2}{h}}$$

$$\frac{a}{r} = \sqrt{\frac{1}{50}} \cdot 0,21646$$

	0,8494850	
	0,14977587 -1	r
log $\frac{r}{a}$	0,3472437	2,2245
log $\frac{a}{r}$	0,6527563 -1	0,2

	8494850	
	5002188	
log $\sqrt{\frac{1}{2}}$	0,3498038	2,2077
log $\frac{r}{a}$	0,6501962 -1	

$$\xi = \frac{a}{b} = \sqrt{\frac{2}{h}} \cdot \frac{b}{a}$$

	0,44688
	0,206
	268128
	1040640
d. $\frac{a}{r}$	0,12674528

$$\frac{z}{a} = \frac{m}{a} + \xi$$

$$= \frac{m}{b} \cdot \sqrt{\frac{2}{h}} + \sqrt{\frac{2}{h}}$$

$$= 0,14487 \cdot \sqrt{50} + \sqrt{\frac{1}{50}} \quad 0,1505140 -1$$

0,1609785 -1
0,8494850
0,0104635

1,02439
14142
1,16581

$$\sqrt{\frac{1 + (\sqrt{2}-1) \frac{a}{r}}{1 - \frac{2-\sqrt{2}}{3} \frac{a}{r}}}$$

1,4142

$$\sqrt{\left(1 + (\sqrt{2}-1) \frac{a}{r}\right) \left(1 + \frac{2\sqrt{2}}{3} \frac{a}{r}\right)}$$

$$\frac{2,8284}{0,9428}$$

$$\sqrt{1 + (\sqrt{2}-1) \frac{a}{r} + \frac{2\sqrt{2}}{3} \frac{a}{r}}$$

$$z = 1 + c \frac{a}{r}$$

$$\frac{0,5858}{1,986}$$

$$c = \frac{\left(\sqrt{2}-1 + \frac{2\sqrt{2}}{3}\right) r}{2}$$

$$\frac{0,4142}{2,99428}$$

$$\frac{0,4142}{1,986}$$

$$0,306$$

$$z = 1 + d \frac{a}{r} + \beta \frac{a^2}{r^2} + \gamma \frac{a^3}{r^3}$$

$$d = 0,306$$

$$z - 1 + d \frac{a}{r} = \zeta$$

$$z' - 1 - d \frac{a'}{r'} = \zeta'$$

$$\zeta = \beta \frac{a^2}{r^2} + \gamma \frac{a^3}{r^3} \quad \left| \frac{a'^3}{r'^3} \right.$$

$$\zeta' = \beta \frac{a'^2}{r'^2} + \gamma \frac{a'^3}{r'^3} \quad \left| \frac{a^2}{r^2} \right.$$

$$\frac{\zeta \frac{a'^3}{r'^3} - \zeta' \frac{a^3}{r^3}}{\frac{a^2}{r^2} \frac{a'^3}{r'^3} - \frac{a'^2}{r'^2} \frac{a^3}{r^3}} = \beta$$

Republikator

$\frac{a}{r}$

$$\begin{array}{r} 0,447 \\ 9,506 \\ \hline 2682 \\ 12410 \\ \hline 1267 \end{array}$$

$$\begin{array}{r} 1,1067 \\ 1,110 \\ \hline 179 \\ 1,1656 \\ \hline 0,02998 \\ 0,5 \quad 0,055 \\ \hline 0,02 \\ \hline 0,0110 \end{array}$$

$$\begin{array}{r} 0,0890 \\ 0,2 \\ \hline 1786 \end{array}$$

$$16 \int 0,055 / 0,0034$$

$$64 \int 0,200 / 0,0031$$

$$\begin{array}{r} 0,0765 \\ 0034 \\ \hline 31 \\ \hline 1,0830 \end{array}$$

$$\frac{m}{a} = 1 + 0,206 \frac{a}{r} + 0,055 \frac{a^2}{r^2} + 0,203 \frac{a^3}{r^3} - \frac{h}{a}$$

$$16 \int 0,600 / 0,0380$$

$$\frac{\partial}{\partial a} \left(\frac{m}{a} \right) = 0,206 + 0,110 \frac{a}{r} + 0,609 \frac{a^2}{r^2} - \frac{\partial h}{\partial a} = 0$$

$$\frac{a}{r} = \frac{1}{4}$$

$$\begin{array}{r} 0,206 \\ 0,0275 \\ 0,380 \\ \hline 0,6135 \end{array}$$

$$\frac{h}{a} = 1,224 \cdot \frac{1}{r}$$

$$\frac{h}{a} = 1,224 \cdot 16$$

$$\begin{array}{r} 7944 \\ 1224 \\ \hline 21184 \end{array}$$

Maximum all a hat.

$$0,206 + 0,110 \frac{a}{r} + 0,609 \frac{a^2}{r^2} = 1,224 \frac{r^2}{a^2} \frac{h}{a}$$

$$\frac{a}{r} = \frac{1}{4} r \quad b = 0,6135 \quad \gamma = 0,2902$$

$$\frac{a}{r} = \frac{1}{2,5} r \quad b = 0,1164 \quad \gamma = 0,3963$$

$$\begin{array}{r} 21,18 \\ 0,447 \\ \hline 14826 \\ 6254 \\ \hline 2118 \\ \hline 290166 \\ -1,224 \cdot \frac{r^2}{a} \end{array}$$

$\frac{a}{r} = \frac{1}{2,6} r \quad b = 0,2825 \quad \gamma = 0,4008$
 $\frac{a}{r} = \frac{1}{2,4} r \quad b = 0,3842 \quad \gamma = 0,4669$

$$\begin{array}{r} 3,5 \\ 2,5 \\ \hline 17,5 \\ 105 \\ \hline 1125 \end{array}$$

$$\begin{array}{r} 11,25 \\ 1,224 \\ \hline 4500 \\ 500 \\ \hline 2000 \\ 2000 \\ \hline 1125 \\ \hline 1419 \end{array}$$

$$\begin{array}{r} 0,0266 \\ 14,9 \\ \hline 239,4 \\ 1064 \\ \hline 266 \\ \hline 29624 \end{array}$$

MAGYAR
HUNGARIAN ACADEMY
KÖNYVTÁRA

1505150

14142

$$\xi = 0,0127$$

$$\frac{z}{a} = \sqrt{\frac{1 + 0,4142 \frac{a}{r} (1 + \dots)}{1 + \frac{2 - \sqrt{2}}{2} \frac{a}{r} (1 + \dots)}}$$

$$\ln \frac{\xi^2}{a^2} = \frac{0,1367206 - 2}{0,1887460 - 4} = 0,00015445$$

$$\begin{array}{r} 1505150 \\ 6020600 \\ \hline 0,7525750 \\ 0,2474250 - 1 \\ \hline 0,17718 \\ 0,82282 \end{array}$$

$$\frac{z}{a} = \sqrt{\frac{1,111624}{0,94745}}$$

$$\begin{array}{r} 1,0765 \\ 0,10355 \\ \hline 53725 \\ 53725 \\ \hline 332295 \\ 107650 \\ \hline 1,111624 \end{array}$$

$$\begin{array}{r} 0,0459485 \\ 78 \\ 16 \end{array}$$

$$\begin{array}{r} 0,0459579 \\ 9765565 - 1 \end{array}$$

$$\begin{array}{r} 0,0694016 \end{array}$$

$$\begin{array}{r} 0,0347008 \\ 108318 \end{array}$$

$$\begin{array}{r} 0,0765 \\ 0,269125 \\ 1,076500 \\ 0,089708 \times 0,58579 \end{array}$$

$$\begin{array}{r} 0,006 \\ 1,08318 \\ 1,0765 \\ \hline 0,00668 \end{array}$$

$$\begin{array}{r} 7677420 - 1 \\ 9528212 - 2 \\ \hline 0,7205702 - 2 \\ 0,052550 \\ 0,94745 \end{array}$$

$$\log \xi = 0,4622956 - 2$$

$$\log \xi' = 0,8247765 - 3$$

$$\log a = 0,6501962 - 1$$

$$\log a' = 0,3979400 - 1$$

ξa^3

$$\begin{array}{r} 0,4632956 - 2 \\ 0,1938200 - 2 \\ \hline 0,6571156 - 4 \end{array}$$

$$0,000454063$$

Capillanta

$\xi' a^3$

$$\begin{array}{r} 0,8247765 - 3 \\ 0,9505886 - 2 \\ \hline 0,7753651 - 4 \end{array}$$

$$\begin{array}{r} 0,000596163 \\ 454063 \\ \hline 142100 \end{array}$$

$a^2 a^3$

$$\begin{array}{r} 0,3003924 - 1 \\ 0,1938200 - 2 \\ \hline 0,4942124 - 3 \end{array}$$

$$0,00312042$$

$a^2 a^3$

$$\begin{array}{r} 0,7958800 - 2 \\ 0,9505886 - 2 \\ \hline 0,7564686 - 3 \end{array}$$

$$\begin{array}{r} 0,00570780 \\ 312042 \\ \hline 258738 \end{array}$$

$$\beta = \frac{0,000142100}{0,00258738}$$

$$\begin{array}{r} 0,1525941 - 5 \\ 0,4128601 - 2 \\ \hline \end{array}$$

$$\log \beta = 0,7397340 - 2$$

$$\log a^2 = 3003924 - 1$$

$$\log \beta a^2 = 0,0401264 - 2$$

$$\beta a^2 = 0,0109680$$

202698

$$\begin{array}{r} 259 \overline{) 1420} \quad | \quad 0,055 \\ \underline{1256} \\ 164 \end{array}$$

AKADÉMIAI
KÖNYVTÁRA

$$\log \frac{0,02906}{0,01097} = 0,01809$$

$$\begin{array}{r} 0,2574086 - 2 \\ 0,9505886 - 2 \\ \hline 0,3068500 - 1 \end{array}$$

0,202697

$\frac{1}{4} \quad \sigma$

20,2 $\frac{1}{20}$
0,0106

Kedves, aranyos nép Rudorándom
milyen könnyedén eselletek!

mit Györfalvány
J. Sics

$$\begin{array}{r} 1,102 \\ 0061 \\ 0075 \\ \hline 1,1156 \end{array}$$

0,0061

$$27 \overline{) 9,203} \quad / 0,0075$$

$$\begin{array}{r} 189 \\ \hline 140 \end{array}$$

$$\begin{array}{r} 1,102 \\ 0,3673 \\ \hline 0,7346 \\ 14692 \\ 3673 \\ \hline 14692 \\ \hline 0,15213566 \end{array}$$

$$\frac{5}{100} \quad \frac{25}{10}$$

$$\begin{array}{r} 14142 \\ 0,5858 \\ 0,3673 \\ \hline 0,5858 \\ 29384 \\ 18365 \\ \hline 29384 \\ 18365 \\ \hline 0,21516834 \\ 0,07172 \\ \hline 0,92928 \end{array}$$

0,002652

$$\begin{array}{r} 0,0626948 \\ 0,9681466 - 1 \\ \hline 0,0945482 \\ 0,0472741 \end{array}$$

$$1,414 \overline{) 0,22333} \quad / 0,236$$

$$\begin{array}{r} 2828 \\ \hline 5053 \\ 4242 \\ \hline 8110 \\ 8984 \end{array}$$

0,5111

$$\begin{array}{r} 1,206 \\ 0,00265 \\ \hline 6180 \\ 7416 \\ 2472 \\ \hline 0,00317540 \end{array}$$

$$(\sqrt{2}-1) \frac{a}{r} \left(1 + c \frac{a}{r}\right)$$

$$\beta = 100$$

$$\frac{r}{b} = 0,21646$$

$$\frac{3}{8} g^2$$

$$c = \frac{1}{3}$$

$$\frac{1,4142}{5} = 0,28284$$

$$\frac{0,28284}{0,9142} = 0,305$$

$$\frac{a}{r} = \sqrt{\frac{2}{\beta}} \frac{b}{r}$$

$$\log \sqrt{\frac{2}{\beta}} = 0,8494850$$

$$\log \frac{r}{b} = 0,5002188 - 1$$

$$\log \frac{a}{r} = 0,3498038$$

$$\log 3 = 4771212$$

$$0,8269251$$

$$0,1720749 - 1$$

$$67121$$

Call

Schleife für Nullstelle

$$1,41421$$

$$c = 0,305$$

$$1,1489$$

$$1,14896$$

$$\frac{1}{6} \times 1 + \frac{1}{4} (1 + \frac{1}{6})$$

$\frac{1}{10}$

$$\log 1,14896 = 0,0602099$$

$$= 0,6172206 - 1$$

$$\log \sqrt{2} - 1$$

$$0,6775305 - 1$$

$$3498038$$

$$0,3277267 - 1$$

$$\frac{2822}{477} = 5,916$$

$$\frac{z}{a} = \sqrt{1 + \frac{2\sqrt{2}-1}{3} \left(\frac{a}{r} + \frac{1}{2} \frac{a^2}{r^2}\right)}$$

$$(\sqrt{2}-1) \frac{a}{r} \left(1 + c \frac{a}{r}\right) = 0,21217$$

$$\frac{1}{4} = \sqrt{\frac{1}{10}}$$

$$\frac{2-\sqrt{2}}{3} \frac{a}{r} \left(1 + c \frac{a}{r}\right) = 0,10029$$

$$\frac{g^2}{a^2} \left(1 - \frac{a}{r}\right) = 0,01368$$

$$0,2277267 - 1$$

$$1505150$$

$$0,4782417 - 1$$

$$\frac{z}{a} = \sqrt{1 + 0,21217 + 0,01368}$$

$$0,20088$$

$$0,10029$$

$$\frac{77,28}{29,15} = 2,651$$

$$= \sqrt{\frac{1,22685}{0,89971}}$$

$$\log \frac{r}{a} = 0,2448038$$

$$1505150$$

$$0,5003188$$

$$0,0882915$$

$$3541025 - 1$$

$$0,1346890$$

$$\log \frac{z}{a} = 0,0673445$$

$$\frac{z}{a} = 1,16774$$

$$0,31607$$

$$0,68393$$

$$1,36786$$

$$0,01268$$

$$\text{but } \frac{m}{b} \sqrt{\frac{b}{2}} + \sqrt{\frac{2}{\beta}}$$

$$\frac{m}{b} = 4,18487$$

$$0,1505150 - 1$$

$$0,141421$$

$$\frac{1,0244}{0,14142}$$

$$\text{but} = 7,243$$

$$\log \frac{m}{b} = 0,609785 - 1$$

$$\log \sqrt{\frac{2}{\beta}} = 0,8494850$$

$$0,0104635$$

$$\frac{m}{r} = 0,48$$

$$\frac{r}{m} =$$

Dans l'annee les $\frac{m}{r}$ / $\frac{m}{r}$

$$48 \overline{) 96} \begin{array}{r} 20 \\ 40 \end{array}$$

$$46 \overline{) 92}$$

77

$$\underline{2,12766}$$

$$\begin{array}{r} 60 \\ 138 \\ 94 \\ \hline 260 \\ 322 \\ \hline 212 \\ \hline 246 \end{array}$$

$$\frac{22}{56} = 0,4$$

$$\frac{m}{r} = 0,48$$

$$\beta = 82,94$$

$$\frac{m}{b} = 0,15802$$

$$\frac{m}{a} = \frac{m}{b} \sqrt{\frac{\beta}{2}}$$

$$\begin{array}{r} 176 \\ 10,56 \end{array}$$

15802

176

$$\frac{b}{a} = \sqrt{\frac{\beta}{2}}$$

$$4147 = \begin{array}{r} 1,6177040 \\ 0,1987121-1 \end{array}$$

$$\underline{0,8164461}$$

$$8088670$$

$$\underline{1,0075791}$$

$$\begin{array}{r} 176 \ 94 \\ 200 \end{array}$$

$$\begin{array}{r} 704 \\ 1584 \\ \hline 16544 \end{array}$$

89

Dans l'annee

$$\frac{m}{r} = 0,47$$

$$\frac{m}{a} = \underline{1,0176}$$

$$48 \overline{) 96}$$

$$\underline{0,20803}$$

$$71,55$$

$$\frac{m}{r} = 0,48$$

$$\underline{\underline{\frac{m}{a} = 1,0118}}$$

$$\begin{array}{r} 400 \\ 384 \\ 160 \\ 144 \\ \hline 160 \end{array}$$

$$\begin{array}{r} 45 \ 225 \\ \hline 225 \end{array}$$

$$\begin{array}{r} 1125 \\ 900 \\ \hline 10125 \\ 51 \end{array}$$

$$35,78$$

$$1,5506400$$

$$\begin{array}{r} 16865 \\ 51 \end{array}$$

$$\text{by } 0,16916 = \begin{array}{r} 0,2282977-1 \\ 0,1768202 \end{array}$$

$$\underline{0,0651179}$$

10118

4,8 10118

$$\begin{array}{r} 211 \overline{) 206} \begin{array}{r} 0,1457 \\ 125 \\ \hline 219 \\ 105 \\ \hline 1801 \\ 156 \\ \hline 7 \end{array} \end{array}$$

$$44 \overline{) 55} \begin{array}{r} 125 \\ 110 \\ \hline 88 \\ \hline 220 \end{array} \quad 90 \overline{) 208} \begin{array}{r} 186 \\ 170 \\ \hline 92 \\ \hline 870 \end{array} \quad 219$$

$$\begin{array}{r} 11 \ 106 \\ \hline 170 \end{array} \quad \begin{array}{r} 170 \overline{) 166} \begin{array}{r} 119 \end{array} \end{array}$$

Mozillantra

$$z^2 - \xi^2 = za^2 \sin^2 \frac{\delta}{2} + a^2 \int \frac{dz \sin \delta}{u}$$

$$\int dz \cdot \frac{\sin \delta}{u} = z \frac{\sin \delta}{u} - \int z d \frac{\sin \delta}{u} = z \frac{\sin \delta}{u} - \frac{z}{u^2} \int dz + \int \frac{z dz}{u^2}$$

$$d \frac{\sin \delta}{u} = \frac{z dz}{a^2} - \frac{z}{u^2} dz$$

$$\frac{z}{u^2} dz = \frac{z}{a^2} dz$$

$$z^2 - \xi^2 = za^2 \sin^2 \frac{\delta}{2} +$$

$$z \frac{\sin \delta}{u} - \frac{z^2 - a^2}{u}$$

$$z^2 - \xi^2 = za^2 \sin^2 \frac{\delta}{2} + a^2 z - \xi^2 \frac{\sin \delta}{u}$$

$$\Delta \quad z - \xi = \frac{za^2 \sin^2 \frac{\delta}{2}}{z \xi} + \frac{a^2 z - \xi^2}{z \xi} \frac{\sin \delta}{u}$$

$$\frac{z + \xi}{2} u = \frac{a^2}{2} \sin \delta + \int \frac{dz \cos \delta}{u}$$

$$\frac{a^2}{\xi}$$

$$\frac{\xi}{a^2} = \dots$$

$$z - \xi = b \sin^2 \frac{\delta}{2} + \frac{b}{2} (z - \xi) \frac{\sin \delta}{u} \quad \frac{1}{b}$$

$$z + \xi = \frac{a^2 \sin \delta}{u} + \frac{1}{u} \int \frac{dz \cos \delta}{u}$$

$$z - \xi = 2b \sin^2 \frac{\delta}{2}$$

m

$$y \delta = 2b \sin^2 \frac{\delta}{2} \cos \frac{\delta}{2} \frac{d\delta}{du}$$

$$y \delta = b \sin^2 \frac{\delta}{2} \frac{d\delta}{du}$$

$$\frac{y}{\cos \delta} = b \frac{d\delta}{du} \quad (b \sin^2 \frac{\delta}{2}) = du$$

$$m \left(1 - \frac{b}{2} \frac{\sin \delta}{u} \right) = \frac{b \sin^2 \frac{\delta}{2}}{u}$$

$$y \delta = \frac{b}{2} \sin^2 \frac{\delta}{2} \frac{d\delta}{du} + \frac{b}{2} y \delta \frac{\sin \delta}{u} + \frac{b}{2} m \frac{\sin \delta}{u^2} + \frac{b}{2} m \frac{\cos \delta}{u} \frac{d\delta}{du}$$

$$\frac{y}{b} = \cos \delta \frac{d\delta}{du} + \frac{\sin \delta}{u} - m \frac{\cos \delta}{u^2} + \frac{y \delta}{u} \frac{d\delta}{du}$$

$\frac{y}{b}$

$$\frac{y}{b} u du = d\delta \sin \delta$$

$$\frac{y}{b} u du = d\delta \sin \delta \quad \frac{y}{b} = \frac{d\delta}{du} + \frac{y \delta}{u}$$

Requilliviter

$$\beta = 98$$

Kapillarität

$$\frac{h'}{h} = e^{\alpha(r'-r)}$$

h. nimmt

$$\beta = 2 \text{ m} \quad h = 1$$

$$r = 0,8782$$

$$e_i \quad \beta = 98 \text{ m} \quad h' = \frac{1}{7}$$

$$r' = 2,230 \text{ mm}$$

$$0,9323 \cdot \log \log \frac{1}{7}$$

$$1,412$$

$$0,612$$

$$\frac{h}{a} = c e^{-\frac{4}{3} \frac{r}{a}}$$

$$h \quad \frac{r}{a} = 2,5 \quad \frac{h}{a} = 0,1$$

$$\log \frac{1}{7} = \alpha \cdot 1,412 \log e$$

$$\log c = \log \frac{h}{a} + \frac{4}{3} \frac{r}{a} \log e$$

$$= -1 +$$

$$\log c = 0,448$$

$$c = 2,805$$

$$\log c = 0,4480000$$

$$\frac{h}{a} = 2,805 e^{-\frac{4}{3} \frac{r}{a}}$$

Iteration 414
1656
5,51

$$\frac{r}{a} = 4,14$$

$$\frac{h}{a} = 0,0114$$

$$\log \frac{h}{a} = 0,4480000$$

$$\frac{r}{a} = 2,188$$

$$\frac{h}{a} = 0,1511$$

$$\frac{r}{a} = 9,9$$

$$\frac{h}{a} = 0,000004566$$

$$\frac{r}{a} = 5,1$$

$$\frac{h}{a} = 0,0002 \quad \text{Permutation } \frac{h}{a} = 0,0004$$

$$\begin{array}{r} 4242 \\ 17 \\ \hline 6,8 \\ \hline 24744 \\ 25958 \\ \hline 0,204324 \\ 0,21948 \\ \hline 2,49524 \\ 0,50476-1 \end{array}$$

$$\begin{array}{r} 0,44800 \\ 1,551 \\ \hline 4242 \\ 21715 \\ \hline 21715 \\ 2192893 \\ \hline 21448 \\ 1,944893 \\ 0,055107-2 \end{array}$$

$$\begin{array}{r} 4242 \\ 219 \\ \hline 272 \\ 8686 \\ 0,73 \\ \hline 2,92 \\ 8686 \\ \hline -1268136 \\ 448 \\ \hline -0,820156 \\ 0,179844-1 \end{array}$$

$$\frac{h}{a} = c e^{\alpha \frac{r}{a}}$$

$\frac{r}{a} = \underline{\text{Capillaritas}}$

$$\frac{h}{h'} = e^{\alpha \left(\frac{r}{a} - \frac{r'}{a} \right)}$$

$$\frac{4,14}{2,20} = \frac{1,91}{1,91}$$

$$\frac{0,0714}{0,1429} = e^{\alpha \cdot 4,14 - 2,20} = e^{\alpha \cdot 1,91}$$

$$1,91 \alpha = \frac{\log \frac{0,0714}{0,1429}}{\log e}$$

$$\begin{array}{r} 0,0569049 - 8 \\ 1550022 - 1 \\ \hline 0,9018727 - 2 \end{array}$$

$$\alpha = \frac{1,0981273}{0,4343 \cdot 1,91}$$

$$\frac{a}{h} = \frac{a}{b} = 1$$

$$\begin{array}{r} 1,0406419 \\ 918820k \\ \hline 0,1218187 \end{array}$$

$$\begin{array}{r} 0,2810004 \\ 6077898 - 1 \\ \hline 0,9188202 - 1 \end{array}$$

$$\frac{b^2}{a^2} = \frac{\beta}{2}$$

$$\frac{a^2}{b^2} = \frac{2}{\beta}$$

$$\alpha = -1,324$$

$$-1,324 \cdot 2,20$$

$$0,1429 = c e$$

$$\begin{array}{r} 1,324 \\ 2,20 \\ \hline 2972 \\ 2648 \\ \hline 2648 \\ \hline 2952 \end{array}$$

$$\log c = \log 0,1429 + 1,324 \cdot 2,20 \cdot \log e$$

$$\begin{array}{r} 2,952 \\ 0,4740 \\ \hline 8856 \\ 11808 \\ 8856 \\ \hline 11808 \\ \hline 0,2820536 \\ 0,1550722 \\ \hline 0,4370858 \end{array}$$

$$2 \frac{b}{a} = 2$$

$$\frac{b}{a} = 1$$

$$\frac{r}{a} \frac{b}{a} = \frac{r}{b}$$

MAGYAR
TUDOMÁNYOS AKADÉMIA
KÖNYVTÁRA

$$\log c = 0,437$$

$$\frac{b}{a} = 2,735 e^{-1,324 \frac{r}{a}}$$

$$\beta = 2 \text{ szem fordítás } \frac{h}{a} = 1 \quad \frac{r}{a} = 0,81822$$

$$\begin{array}{r} 1,324 \\ 0,818 \\ \hline 10592 \\ 1324 \\ 592 \\ \hline 1082622 \end{array}$$

$$\begin{array}{r} 1,080 \\ 0,4740 \\ \hline 0,2249 \\ 4332 \\ \hline 0,2249 \\ 4332 \\ \hline 0,4703469 \end{array}$$

$$\begin{array}{r} 4070858 \\ 4700469 \\ \hline -0,9074327 \\ 0,909256743 - 1 \end{array}$$

$$\frac{1}{\beta} = 2$$

$\int z^2 du$ hatya.

$$\left(\frac{m}{2}\right)^2$$

$$\frac{m^2}{2}$$

$$z^2 - \frac{m^2}{2} = 2a \sin^2 \frac{\delta}{2} + \frac{1}{a} \int m^2 du + \frac{2}{a} \int m du + \frac{a^2}{2} (d\delta - du)$$

$$z^2 - \frac{m^2}{2} = 2a \sin^2 \frac{\delta}{2} + \frac{2}{\sqrt{2}a} \frac{m}{2} (1 - \cos \frac{\delta}{2}) + \frac{2\sqrt{2}}{3a} a^{1/2} (1 - \cos^2 \frac{\delta}{2})$$

$$+ \frac{a^{1/2}}{2} \sin \delta + \frac{a^2}{2} \sqrt{2} a' (1 - \cos \frac{\delta}{2})$$

$$\frac{m^2}{2 \sin^2 \frac{\delta}{2}}$$

$$\frac{m^2}{2} \frac{\sin \delta}{2 \sin^2 \frac{\delta}{2}} \sin \frac{\delta}{2} \cos \frac{\delta}{2}$$

$$a' \sqrt{2} \sin \frac{\delta}{2} = z - \frac{m^2}{2}$$

$$a' = \frac{m}{\sqrt{2} \sin \frac{\delta}{2}}$$

$$\frac{m^3}{2 \sin^3 \frac{\delta}{2}}$$

$$m^2 + 2mh = 2a \sin^2 \frac{\delta}{2} - \frac{m^2}{2a} \frac{1 - \cos \frac{\delta}{2}}{\sin^2 \frac{\delta}{2}} + \frac{m^2}{2a} \frac{1 - \cos^2 \frac{\delta}{2}}{\sin^2 \frac{\delta}{2}}$$

$$+ \frac{m^2}{2a} \frac{1}{\sin \frac{\delta}{2}} + \frac{a^2}{2} m \frac{1 - \cos \frac{\delta}{2}}{\sin \frac{\delta}{2}}$$



Kapillonten



$$\left(\frac{m^2}{2} - \frac{z^2}{2}\right) \uparrow$$

$$a' d(n \sin \delta) =$$

in p

$$a' d(n \sin \delta) = \sin \delta \cdot da$$

$$\frac{a'}{2} d(n \sin \delta) = \sin \delta \cdot da$$

$$2n \cdot dz = \sqrt{2} d(n \cos \delta) + da$$

$$2z \cdot da = \frac{a'}{2} d(n \sin \delta) + \frac{a^2}{2} da$$

$$2z \cdot da = \frac{d(n \cos \delta)}{d(n \sin \delta)} + \frac{da}{\cos \delta}$$

$$\sin \delta \cdot \ln \tan \delta + a \cos \delta \cdot \ln \frac{1}{\cos \delta} = \frac{2z}{a} \cos \delta \cdot da + \frac{da}{\cos \delta}$$

$$\frac{d(n \sin \delta)}{\cos \delta} + a \sin \delta \cdot da =$$

$$da \left(\cos \delta - \frac{\sin^2 \delta}{\cos \delta} \right) = 2a \sin \delta \cdot da$$

$$\frac{da}{a} = \frac{\sin \delta \cos \delta}{\cos^2 \delta - \sin^2 \delta} da$$

$$\frac{m}{a} = 1 + 0,306 \frac{a}{r}$$

$$\frac{m}{r} = \frac{a}{r} + 0,306 \frac{a^2}{r^2}$$

$$\frac{m}{r} = \frac{a}{r} (1 + 0,306 \frac{a}{r})$$

$$\frac{m}{a} = \frac{m}{a} \left(\frac{m}{a} + 0,306 \right)$$

$$\left(\frac{m}{a} \right)^2 = \frac{m}{a} + 0,306 \frac{m}{r}$$

0,02906

MAJLIS
TUDJAN
KONVENSIA

$$y \left(\frac{m^2}{a} \right) - \frac{m}{a} =$$

Kepillanthon.

$$\frac{m}{a} = \frac{1}{2} + \sqrt{\frac{1}{4} + 0,306 \frac{m}{r}}$$

$$\frac{m}{a} = \frac{1}{2} + \frac{1}{2} \left(1 + 0,612 \frac{m}{r} \right)$$

$$\frac{m}{a} = 1 + 0,306 \frac{m}{r}$$

$$\frac{m}{a} = 1 + 0,306 \frac{m}{r} + \alpha \frac{m^2}{r^2} + \beta \frac{m^3}{r^3} + \gamma \frac{m^4}{r^4}$$

$$\frac{m}{r} = 0,47 \quad \frac{m}{a} = 1,0176$$

$$\frac{m}{r} = 0,3545 \quad \frac{m}{a} = 1,0635$$

$$\frac{m}{r} = 0,2674 \quad \frac{m}{a} = 1,0695$$

$$\frac{m}{a} (1 + 0,306 \frac{m}{r}) \quad \frac{m}{a} (1 + 0,306 \frac{m}{r}) = \alpha \frac{m^2}{r^2} = x \quad \frac{m}{r^3} = y \quad \frac{m^4}{r^4} = z$$

$$\begin{cases} a = \alpha x + \beta y + \gamma z & az' = \alpha xz' + \beta yz' + \gamma z z' \\ a' = \alpha x' + \beta y' + \gamma z' & a'z = \alpha x'z + \beta y'z + \gamma z z' \\ a'' = \alpha x'' + \beta y'' + \gamma z'' & \end{cases}$$

$$\begin{cases} az' - a'z = \alpha(xz' - x'z) + \beta(yz' - y'z) \\ a'z'' - a''z' = \alpha(x'z'' - z'x'') + \beta(y'z'' - z'y'') \end{cases}$$

- negativ.
- ~~az' - a'z = 0,00015970~~
 - az' - a'z = -0,00015970
 - ~~a'z'' - a''z' = -0,00011835~~
 - a'z'' - a''z' = -0,00031688
 - xz' - x'z = -0,0019659
 - yz' - y'z = -0,00037540
 - x'z'' - z'x'' = -0,00033757
 - y'z'' - z'y'' = -0,0004828

$$a = 0,02906 \quad a' = 4,0130 \quad a'' = 0,0197$$

$$x = (0,44688)^2 \quad x' = \left(\frac{1}{3}\right)^2 \frac{1}{9} \quad x'' = \left(\frac{1}{4}\right)^2 \frac{1}{16}$$

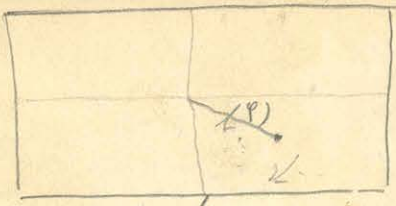
$$y = x^{\frac{3}{2}} \quad y' = (x')^{\frac{3}{2}} \frac{1}{27} \quad y'' = \left(\frac{1}{4}\right)^{\frac{3}{2}} \frac{1}{64}$$

$$z = x^2 \quad z' = (x')^2 \frac{1}{81} \quad z'' = \left(\frac{1}{4}\right)^2 \frac{1}{256}$$

$$\log x = 0,9003924 - 1$$

$$\log y = 0,9505886 - 2$$

$$\log z = 0,6007848 - 2$$



1

2

3

4

$$-2f_0 l \cos \varphi \left\{ (b+l \sin \varphi) \left[\begin{array}{c} b+l \sin \varphi \\ a-l \cos \varphi \\ c \end{array} + \begin{array}{c} b+l \sin \varphi \\ a+l \cos \varphi \\ c \end{array} \right] - (b-l \sin \varphi) \left[\begin{array}{c} b-l \sin \varphi \\ a-l \cos \varphi \\ c \end{array} + \begin{array}{c} b-l \sin \varphi \\ a+l \cos \varphi \\ c \end{array} \right] + \right.$$

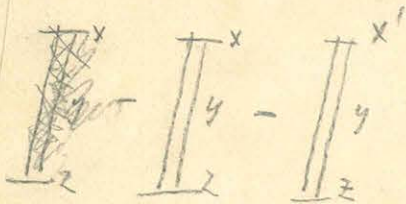
$$\left. + (a-l \cos \varphi) \left[\begin{array}{c} b+l \sin \varphi \\ a-l \cos \varphi \\ c \end{array} - \begin{array}{c} b-l \sin \varphi \\ a-l \cos \varphi \\ c \end{array} \right] + (a+l \cos \varphi) \left[\begin{array}{c} b+l \sin \varphi \\ a+l \cos \varphi \\ c \end{array} - \begin{array}{c} b-l \sin \varphi \\ a+l \cos \varphi \\ c \end{array} \right] + \right.$$

$$\left. + c \left[\begin{array}{c} b+l \sin \varphi \\ a-l \cos \varphi \\ c \end{array} - \begin{array}{c} b-l \sin \varphi \\ a-l \cos \varphi \\ c \end{array} + \begin{array}{c} b+l \sin \varphi \\ a+l \cos \varphi \\ c \end{array} - \begin{array}{c} b-l \sin \varphi \\ a+l \cos \varphi \\ c \end{array} \right\}$$

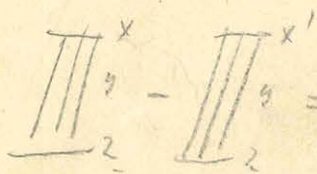
$$+ 2f_0 l \sin \varphi \left\{ (a+l \cos \varphi) \left[\begin{array}{c} a+l \cos \varphi \\ b+l \sin \varphi \\ c \end{array} + \begin{array}{c} a+l \cos \varphi \\ b-l \sin \varphi \\ c \end{array} \right] - (a-l \cos \varphi) \left[\begin{array}{c} a-l \cos \varphi \\ b+l \sin \varphi \\ c \end{array} + \begin{array}{c} a-l \cos \varphi \\ b-l \sin \varphi \\ c \end{array} \right] + \right.$$

$$\left. + (b-l \sin \varphi) \left[\begin{array}{c} a+l \cos \varphi \\ b-l \sin \varphi \\ c \end{array} - \begin{array}{c} a-l \cos \varphi \\ b-l \sin \varphi \\ c \end{array} \right] + (b+l \sin \varphi) \left[\begin{array}{c} a+l \cos \varphi \\ b+l \sin \varphi \\ c \end{array} - \begin{array}{c} a-l \cos \varphi \\ b+l \sin \varphi \\ c \end{array} \right] + \right.$$

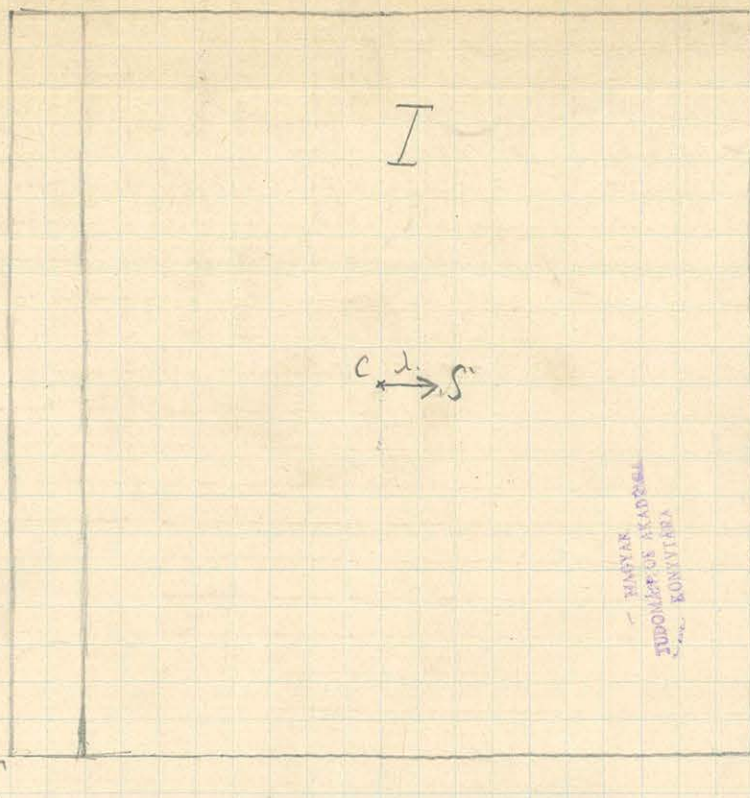
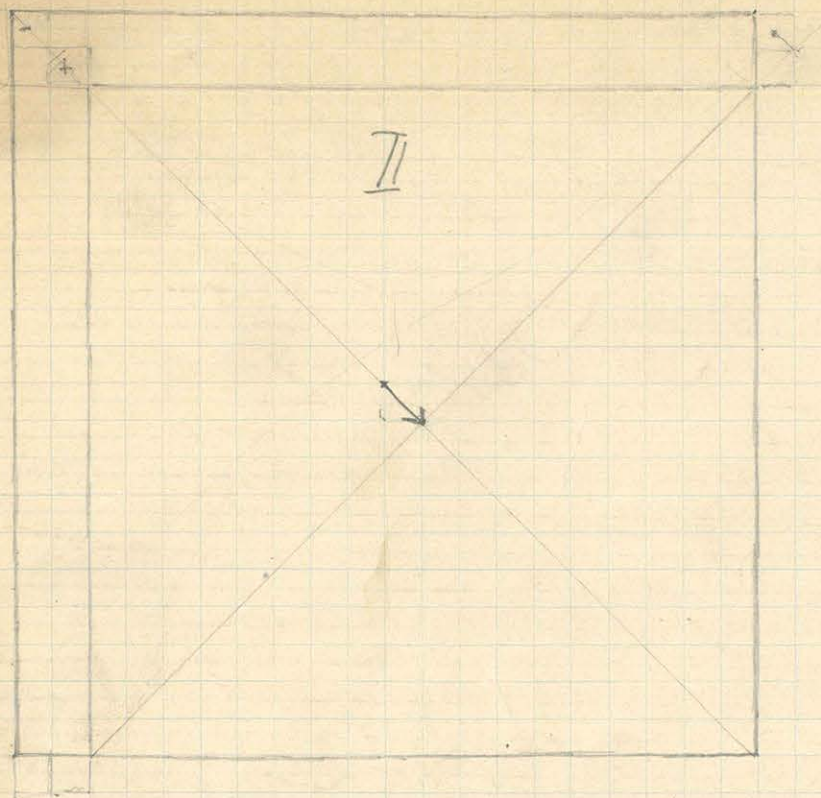
$$\left. + c \left[\begin{array}{c} a+l \cos \varphi \\ b-l \sin \varphi \\ c \end{array} - \begin{array}{c} a-l \cos \varphi \\ b-l \sin \varphi \\ c \end{array} + \begin{array}{c} a+l \cos \varphi \\ b+l \sin \varphi \\ c \end{array} - \begin{array}{c} a-l \cos \varphi \\ b+l \sin \varphi \\ c \end{array} \right\}$$



$$\frac{1}{2} \log \frac{x^2 + y^2}{x^2 + y^2} + \log \frac{z + \sqrt{x^2 + y^2 + z^2}}{z + \sqrt{x^2 + y^2 + z^2}}$$



$$\frac{1}{2} \log \frac{x^2 + z^2}{x^2 + z^2} + \log \frac{y + \sqrt{x^2 + y^2 + z^2}}{y + \sqrt{x^2 + y^2 + z^2}}$$



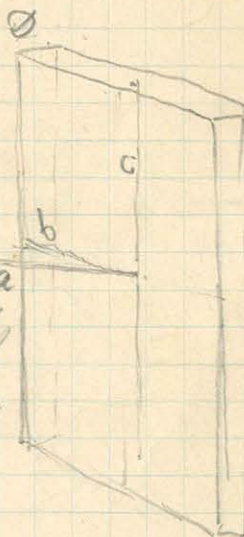
g keresztmetszeten σ szögű felület alatt
 C magasságú csúsz. csúsz. r. távolság

$$P = 2f\sigma g \frac{c}{r\sqrt{r^2+c^2}}$$

$$\frac{\partial P}{\partial r} = -2f\sigma g \frac{c(r^2+c^2)}{r^2(r^2+c^2)^{\frac{3}{2}}}$$

végén valószínű

\mathcal{D} , $2b \times c$ méretű
 kompozíció képződésénél
 a normális távolságban
 = Q



$$Q = 4f\sigma \frac{\mathcal{D}^3}{b^3} - 4f\sigma \frac{\mathcal{D}^3 abc}{24(a^2 g^2 + b^2 c^2)g} \left\{ 3 - \frac{a^2}{g^2} - 2 \frac{(g^2 + a^2)^2}{(a^2 g^2 + b^2 c^2)} \right\} \quad g^2 = a^2 + b^2 + c^2$$

Ch) Sz. vizsg. után. I. és II. esetek A_I II. eset A_{II}

$$Q_I = 4f\sigma \frac{2\lambda^2}{b^3} - 4f\sigma \frac{8\lambda^3}{24} N$$

$$A_I = \int_0^{\lambda} Q_I dh = -4f\sigma \frac{\lambda^2}{b^3} + 4f\sigma \frac{\lambda^4}{12} N$$

II. eset öm. erő ellátásának függvényében $R = -\sqrt{2} \cdot 4f\sigma \left[\lambda \sqrt{2} \frac{c}{b^3} - \frac{\lambda^3 \sqrt{2}}{12} N \right] + f\sigma \lambda^3 \frac{c(4b^2+c^2)}{2b^2(2b^2+c^2)^{\frac{3}{2}}} + f\sigma \lambda^3 \frac{c}{2b^2 \sqrt{2b^2+c^2}}$

$$A_{II} = -4f\sigma \frac{\lambda^2}{b^3} + f\sigma \frac{\lambda^4}{4} \left[\frac{2}{3} N + \frac{c(4b^2+c^2)}{2b^2(2b^2+c^2)^{\frac{3}{2}}} + \frac{c}{2b^2 \sqrt{2b^2+c^2}} \right]$$

$$a=b=1$$

$$A_{II} - A_I = V_{II} - V_I = \int_0^{\frac{\pi}{4}} F dr = \int_0^{\frac{\pi}{4}} d_4 \sin v dr = \frac{d_4}{2} 4/5 \lambda^2$$

$$d_4 = -\frac{1}{12} \lambda^2 \frac{c}{(s^2+c^2)s} \left\{ 3 - \frac{1}{s^2} - 2 \frac{(1+s^2)^2}{s^2+c^2} \right\} + \frac{1}{8} \lambda^2 \frac{c}{\sqrt{2+c^2}} \frac{2+c^2}{2+c^2}$$

$$s^2 = 2+c^2$$

mit $c=2$ m. $d_4 = 0,1664746 \lambda^2$

Ms 5106/7

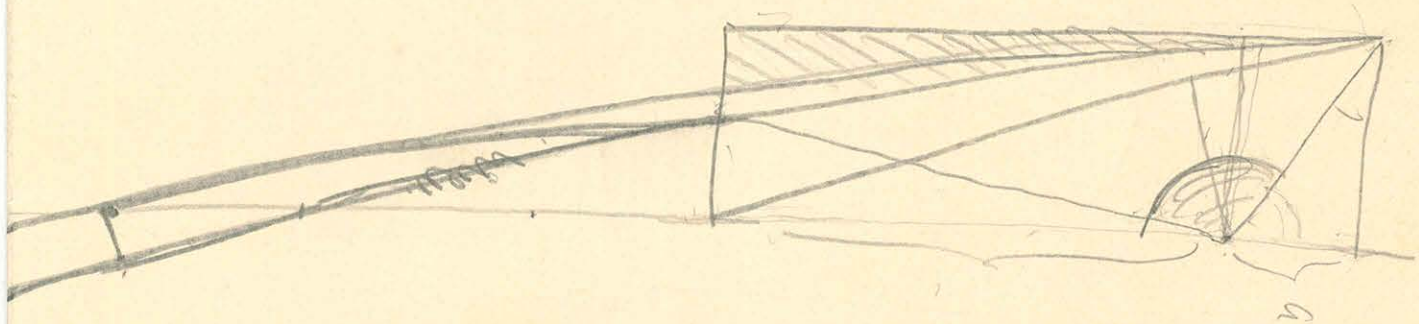
Dr. Morwick

MAJLAK
KEMALAHAN AKADEMI
KUNYITARA

MAGYAR
 AKADEMIA
 KÖNYVTÁRA



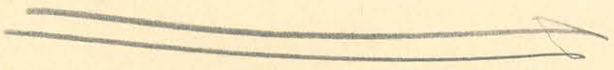
$$\text{arctg} \frac{l-x}{2} + \text{arctg} \frac{x}{2a}$$



$$\frac{\text{arctg} \frac{l-x}{2} - \text{arctg} \frac{x}{2a}}{2}$$

l-x

180 - arctg



$$\text{arctg} \cdot \frac{l-x}{2} + \text{arctg} \frac{1}{x}$$

l
 11

$$\pi - \text{arctg} \frac{l-x}{2} - \frac{\pi}{2}$$

$$\pi - \text{arctg} \frac{l-x}{2} - \frac{\pi}{2}$$

$$\frac{\frac{1}{x} - \frac{2}{L+x}}{1 + \frac{2}{x(L+x)}}$$

$$\frac{L+x-2x}{2+(L+x)x} \quad \frac{(L-x)}{2+Lx+x^2}$$

$$\frac{\pi}{2} - \arctan \frac{2}{x}$$



$$\arctan \frac{1}{x} - \arctan \frac{2}{L+x}$$

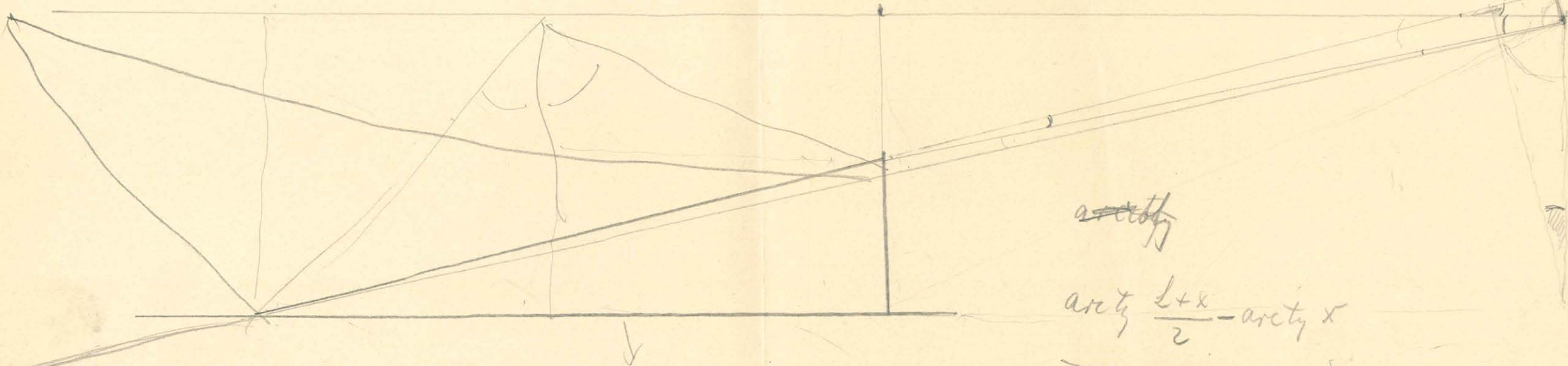
$$\arctan x - \arctan \frac{L+x}{2}$$

~~arctan~~

$$\arctan \frac{L+x}{2} - \arctan x$$

$$\arctan \frac{L+x}{2} - \arctan x$$

$$\arctan \frac{L+x}{2} - \arctan x$$



$C=1$	$x =$	C^2+x^2	C^2-2x^2	$\ln C^2+x^2$	$\sum \ln(C^2+x^2)$	$x=0 \frac{\partial^2 L}{\partial x^2} = 0$ $= \frac{2x}{3x^2}$	$x=0 \frac{\partial^2 L}{\partial x^2} = 1$ $= \frac{C^2-2x^2}{x^3} \Delta x$
	0,1	1,01	0,98	0,0043214	0,00108085	0,29263	+0,92417
	0,2	1,04	0,92	0,0170322	0,0425832	0,54396	+0,82407
	0,3	1,09	0,82	0,0374265	0,0935662	0,72557	+0,66107
	0,4	1,16	0,68	0,0644580	0,1611450	0,82801	+0,46921
	0,5	1,25	0,50	0,0969100	0,2422750	0,85865	+0,28622
	0,6	1,36	0,28	0,1335389	0,3838472	0,83450	+0,12981
	0,7	1,49	0,02	0,1731863	0,4329658	0,77492	+0,00738
	0,8	1,64	-0,28	0,2148428	0,5371095	0,69679	-0,08129
	0,9	1,81	-0,62	0,2576786	0,6441965	0,61258	-0,14067
	1,0	2,0	-1,00	0,3010300	0,7525750	0,51826	-0,17678
	1,1	2,21	-1,42	0,3443923	0,8609807	0,45450	-0,19557
	1,2	2,44	-1,88	0,3873898	0,9684742	0,38711	-0,20216
	1,3	2,69	-2,38	0,4297522	1,0743808	0,32861	-0,20054
	1,4	2,96	-2,92	0,4712917	1,1782292	0,27863	-0,19271
	1,5	3,25	-3,50	0,5118824	1,2794085	0,23649	-0,18292
	1,6	3,56	-4,12	0,5514500	1,3786250	0,20073	-0,17230
	1,7	3,89	-4,78	0,5899496	1,4748740	0,17088	-0,16016
	1,8	4,24	-5,48	0,6273659	1,5684147	0,14588	-0,14804
	1,9	4,61	-6,22	0,6637009	1,6592522	0,12492	-0,13631
	2,0	5,00	-7,00	0,6989700	1,7474250	0,10733	-0,12522

MAGYAR
 SZAKMUNKAI TANÁRSÁG
 KÖNYVTÁRA

Ms 106/8

1890
Edmund

1894.

	1	4	7	10	1	4	7	10	
Febr. 7					+ 20	- 12	+ 36	+ 64	+ 11,7
8	- 22	- 28	0	+ 15	+ 32	+ 25	+ 70	+ 95	+ 23,0
9	+ 20	- 16	+ 15	- 18	+ 68	+ 18	+ 120	+ 105	+ 40,2
10	+ 35	- 20	+ 18	0	+ 18	- 50	+ 18	+ 40	- 39,0
11	- 66	- 66	- 48	- 90	- 50	+ 200	+ 310	+ 300	+ 216,0
12	+ 218	+ 196	+ 180	+ 150	+ 174	+ 152	+ 256	+ 258	+ 191,3
13	+ 170	+ 140	+ 183	+ 180	+ 12	- 20	+ 74	+ 90	+ 21,8
14	+ 30	0	+ 8	- 20	+ 0	+ 10	+ 120	+ 132	+ 39,3
15	+ 26	+ 12	+ 22	- 8	+ 22	+ 8	+ 122	+ 140	+ 49,3
16	+ 40	+ 18	+ 28	+ 16	+ 39	+ 40	+ 156	+ 144	+ 68,9
17	+ 50	+ 26	+ 56	+ 40	+ 50	+ 62	+ 195	+ 182	+ 90,6
18	+ 72	+ 70	+ 72	+ 22	+ 90	+ 80	+ 214	+ 196	+ 122,1
19	+ 128	+ 94	+ 105	+ 70					
more					+ 44	0	+ 160	+ 182	92,5
2	+ 118	+ 86	+ 90	+ 60	+ 140	+ 96	+ 196	+ 230	144,6
3	+ 162	+ 122	+ 126	+ 85	+ 40	- 145	+ 65	+ 110	13,1
4	+ 35	0	0	0	0	- 56	+ 74	+ 90	+ 6,0
5	0	- 20	- 15	- 25		- 10	+ 100	+ 98	+ 28,8
6	+ 36	+ 10	+ 12	- 16	0	- 70	+ 105	+ 144	+ 34,1
7	+ 50	+ 18	+ 10	0	+ 16	- 40	+ 104	+ 80	+ 36,8
8	+ 72	+ 20	+ 40	+ 8	+ 10	- 42	+ 104	+ 120	+ 30,0
9	+ 24	0	+ 16	- 12	+ 30		+ 128	+ 136	+ 60,0
10	+ 40	+ 22	+ 34	0	0	- 80	+ 64	+ 94	+ 14,5
11	+ 46	+ 8	+ 8	- 24					
12					+ 24	0	+ 70	+ 112	+ 28,9
13	+ 20	+ 22	+ 20	- 8	+ 24	- 50	+ 22	+ 54	- 21,1
14	- 30	- 44	- 36	- 50	- 16	- 40	+ 76	+ 114	+ 18,0
15	+ 14	0	+ 10	- 18	- 22	- 30			
16						+ 10	+ 70	+ 100	+ 35,7
17	+ 10	0	+ 14	+ 46	+ 30	- 10	+ 112	+ 112	+ 31,5
18	+ 18	0	+ 10	+ 10	+ 120	+ 84	+ 164	+ 170	+ 100,5
19	+ 96	+ 60	+ 60	+ 54					

$$V = a_0 + a_1 \frac{\partial V}{\partial x} + a_2 \frac{\partial V}{\partial y} + a_3 \frac{\partial V}{\partial z} + a_{11} \frac{\partial^2 V}{\partial x^2} + a_{12} \frac{\partial^2 V}{\partial x \partial y} + a_{13} \frac{\partial^2 V}{\partial x \partial z} + a_{22} \frac{\partial^2 V}{\partial y^2} + a_{23} \frac{\partial^2 V}{\partial y \partial z} + a_{33} \frac{\partial^2 V}{\partial z^2}$$

$$V = a_0 + a_1 x + a_2 y + a_3 z + a_{11} x^2 + a_{12} xy + a_{13} xz + a_{22} y^2 + a_{23} yz + a_{33} z^2$$

$$\frac{\partial V}{\partial x} = 2a_{11}x + a_1 + a_{12}y + a_{13}z$$

$$\frac{\partial V}{\partial y} = a_{12}x + a_2 + 2a_{22}y + a_{23}z$$

$$\frac{\partial V}{\partial z} = a_{13}x + a_{23}y + a_3 + 2a_{33}z$$

$$\frac{\partial V}{\partial x} = 2a_{11}x + a_1 + a_{12}y + a_{13}z$$

$$\frac{\partial V}{\partial y} = a_{12}x + a_2 + 2a_{22}y + a_{23}z$$

$$\frac{\partial V}{\partial z} = a_{13}x + a_{23}y + a_3 + 2a_{33}z$$

$$\frac{\partial}{\partial x} () = -6a_{11} + 2a_{12}y + 2a_{13}z$$

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$$-6a_{11} = \frac{\partial}{\partial x} () - 2 \frac{\partial}{\partial y} \left(\frac{\partial V}{\partial x} \right)$$

$$\frac{\partial V}{\partial x}$$

$$\frac{\partial V}{\partial y}$$

$$\frac{\partial}{\partial x} \left(\frac{\partial V}{\partial y} \right) = \frac{\partial}{\partial x} (a_{12}x + a_{23}z)$$

$$U = a_0 + a_1 x + a_2 y + a_3 z + a_{11} x^2 + a_{22} y^2 + a_{33} z^2 + a_{12} xy + a_{23} yz + a_{31} zx + a_{111} x^3 + a_{222} y^3 + a_{333} z^3 + a_{122} xy^2 + a_{133} xz^2 + a_{233} yz^2 + a_{211} yx^2 + a_{311} zx^2 + a_{322} zy^2 + a_{123} xyz$$

$$\frac{\partial U}{\partial x} = a_1 + 2a_{11}x + a_{12}y + a_{31}z + 3a_{111}x^2 + a_{122}y^2 + a_{133}z^2 + 2a_{211}xy + 2a_{311}xz + a_{123}yz$$

$$\frac{\partial U}{\partial y} = a_2 + 2a_{22}y + a_{12}x + a_{23}z + 3a_{222}y^2 + a_{211}x^2 + a_{233}z^2 + 2a_{122}xy + 2a_{322}yz + a_{123}xz$$

$$\frac{\partial U}{\partial z} = a_3 + 2a_{33}z + a_{31}x + a_{23}y + 3a_{333}z^2 + a_{311}x^2 + a_{322}y^2 + 2a_{133}xz + 2a_{233}yz + a_{123}xy$$

$$\frac{\partial^2 U}{\partial x \partial z} = a_{31} + 2a_{133}z + 2a_{311}x + a_{123}y$$

$$\frac{\partial^2 U}{\partial y \partial z} = a_{23} + 2a_{233}z + 2a_{322}y + a_{123}x$$

$$\frac{\partial^2 U}{\partial x \partial y} = a_{12} + 2a_{122}y + 2a_{211}x + a_{123}z$$

$$\frac{\partial^2 U}{\partial x^2} = 2a_{11} + 6a_{111}x + 2a_{211}y + 2a_{311}z$$

$$\frac{\partial^2 U}{\partial y^2} = 2a_{22} + 6a_{222}y + 2a_{122}x + 2a_{322}z$$

$$\frac{\partial^2 U}{\partial y^2} - \frac{\partial^2 U}{\partial x^2} = 2(a_{22} - a_{11}) + (6a_{222} - 2a_{211})y - (6a_{111} - 2a_{122})x + 2(a_{322} - a_{311})z$$

$$\frac{\partial^2 U}{\partial x^2} + \frac{\partial^2 U}{\partial y^2} = 2(a_{11} + a_{22}) + (6a_{222} + 2a_{211})y + (6a_{111} + 2a_{122})x + 2(a_{322} + a_{311})z$$

$$\frac{\partial^2 U}{\partial z^2} = 2a_{33} + 6a_{333}z + 2a_{133}x + 2a_{233}y$$

$$\frac{\partial^2 U}{\partial x^2} + \frac{\partial^2 U}{\partial y^2} = 2(a_{11} + a_{22}) + (6a_{222} + 2a_{211})y + (6a_{111} + 2a_{122})x$$

$$\frac{\partial^2 U}{\partial z^2} = 2a_{33} + 2a_{233}y + 2a_{133}x$$

$$\begin{cases} -a_{33} = a_{11} + a_{22} \\ -a_{133} = 3a_{111} + a_{122} \\ -a_{233} = 3a_{222} + a_{211} \\ -a_{333} = \frac{1}{3}a_{222} + \frac{1}{3}a_{111} \end{cases}$$

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$Z = 0 \text{ ra.}$

and van a_0
 $a_1 \ a_2 \ a_3 \ a_{33}$

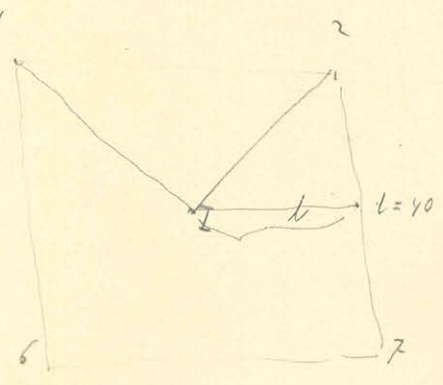
$\frac{\partial H}{\partial x_1} = a_{31} + 2a_{311}x + a_{123}y \quad 1)$

$\frac{\partial H}{\partial y_1} = a_{23} + 2a_{322}y + a_{123}x \quad 2)$

$\frac{\partial H}{\partial x_2} = a_{12} + 2a_{122}y + a_{211}x \quad 3)$

$\frac{\partial^2 H}{\partial y_1^2} - \frac{\partial^2 H}{\partial x_2^2} = 2(a_{22} - a_{11}) + (6a_{222} - 2a_{211})y - (6a_{111} - 2a_{122})x \quad 4)$

$2(a_{22} - a_{11})$ is $a_{11} + a_{22} = a_{33}$ a_{22}, a_{11}, a_{22}
 $6a_{222} + 2a_{211}$ is a_{22}
 $6a_{111} - 2a_{122}$ is a_{11}



1, 2, I allowen 5 bit condities behoudend. I

1) gelyk.

- 1 all.
- 2 all
- I all.

$+41,74 \cdot 10^{-9} = a_{31} + 80 a_{311} - 40 a_{123}$
 $+36,59 \cdot 10^{-9} = a_{31} + 80 a_{311} + 40 a_{123}$
 $+39,54 \cdot 10^{-9} = a_{31}$

$a_{31} = +39,54 \cdot 10^{-9}$
 $a_{311} = -0,0047 \cdot 10^{-9}$
 $a_{123} = -0,0644 \cdot 10^{-9}$

2) gelyk.

- 1 all
- 2 all
- I all.

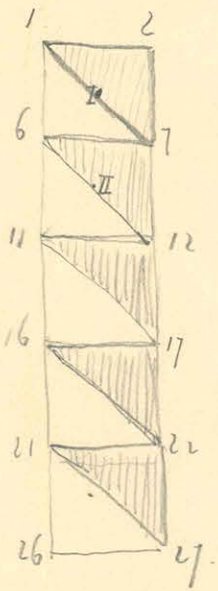
$-59,45 \cdot 10^{-9} = a_{23} - 80 a_{322} + 40 a_{123}$
 $-70,17 \cdot 10^{-9} = a_{23} + 80 a_{322} + 40 a_{123}$
 $-63,65 \cdot 10^{-9} = a_{23}$
 $-64,12$

$a_{23} = -63,65 \cdot 10^{-9}$
 $a_{322} = -0,0670 \cdot 10^{-9}$
 $a_{123} = -0,0265 \cdot 10^{-9}$

U harmadfokú, alacsony szimmetria

I feltétel $U = a_0$ $\frac{\partial U}{\partial x} = a_1 = \xi$ $\frac{\partial U}{\partial y} = a_2 = \eta$ $\frac{\partial U}{\partial z} = a_3 = \zeta_0$

$\frac{\partial^2 U}{\partial z^2} = 2a_{33} = c$



Megoldás. 12,7 Kérdésmutató I.

1 egyenlet

$41,74 \cdot 10^{-9} = a_{21} + 80a_{211} - 40a_{122}$

$a_{21} = +40,72 \cdot 10^{-9}$

$36,59 \cdot 10^{-9} = a_{21} + 80a_{211} + 40a_{122}$

$a_{211} = -0,0194 \cdot 10^{-9}$

$39,70 \cdot 10^{-9} = a_{21} - 80a_{211} + 40a_{122}$

$a_{122} = -0,0644 \cdot 10^{-9}$

2 egyenlet

$-59,45 \cdot 10^{-9} = a_{22} - 80a_{222} + 40a_{122}$

$a_{22} = -62,68 \cdot 10^{-9}$

$-70,17 \cdot 10^{-9} = a_{22} + 80a_{222} + 40a_{122}$

$a_{222} = -0,0670 \cdot 10^{-9}$

$-65,90 \cdot 10^{-9} = a_{22} + 80a_{222} - 40a_{122}$

$a_{122} = -0,0534 \cdot 10^{-9}$

3 egyenlet

$+9,84 = a_{12} - 80a_{122} + 40a_{212}$

$a_{12} = +10,32 \cdot 10^{-9}$

$+32,05 = a_{12} + 80a_{122} + 40a_{212}$

$a_{122} = +0,1388 \cdot 10^{-9}$

$+10,79 = a_{12} + 80a_{122} - 40a_{212}$

$a_{212} = +0,2658 \cdot 10^{-9}$

4 egyenlet

$+187,82 = 2(a_{22} - a_{11}) - 40(6a_{222} - 2a_{211}) - (6a_{111} - 2a_{122}) \cdot 40$

$2(a_{22} - a_{11}) = +133,23 \cdot 10^{-9}$

$+110,45 = 2(a_{22} - a_{11}) + 40(6a_{222} - 2a_{211}) - (6a_{111} - 2a_{122}) \cdot 40$

$6a_{222} - 2a_{211} = -0,8921 \cdot 10^{-9}$

$+84,64 = 2(a_{22} - a_{11}) + 40(6a_{222} - 2a_{211}) + (6a_{111} - 2a_{122}) \cdot 40$

$6a_{111} - 2a_{122} = -0,3226 \cdot 10^{-9}$

$-\frac{c}{2} = a_{11} + a_{22}$

$a_{11} = -\frac{c}{4} - 33,31 \cdot 10^{-9}$

$+66,62 = a_{22} + a_{12}$

$a_{22} = -\frac{c}{4} + 33,31 \cdot 10^{-9}$

$a_{33} = +\frac{c}{2}$

$a_{222} = -0,0601 \cdot 10^{-9}$

$a_{111} = -0,0075 \cdot 10^{-9}$

$a_{133} = -0,1163 \cdot 10^{-9}$

$a_{233} = -0,0855 \cdot 10^{-9}$

$a_{333} = +0,0288 \cdot 10^{-9}$

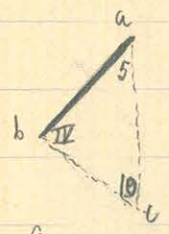
$B_c + B_a$ $A_b + A_c$ $\frac{1}{2}(B_c + B_a)$ $\frac{1}{4}(A_b + A_c)$ ξ_{bc} η_{bc}

	+301,49	+75,37	$\xi_{1,2} = K$	$\eta_{1,2} = +75,371 - K$		
	+41,89	+230,12	+20,95	+57,53	$\xi_{2,2} = +20,951 - K$	$\eta_{2,2} = +78,481 - K$
	+30,53	+191,02	+15,27	+47,75	$\xi_{3,2} = +5,681 + K$	$\eta_{3,2} = +53,431 - K$
	+45,43	+144,52	+22,72	+36,13	$\xi_{4,3} = +28,401 - K$	$\eta_{4,3} = +64,531 - K$
	+18,12	+133,09	+9,06	+33,27	$\xi_{5,3} = -19,341 + K$	$\eta_{5,3} = +52,611 - K$
	+9,66	+133,60	+4,83	+33,40	$\xi_{6,4} = +24,171 - K$	$\eta_{6,4} = +57,571 - K$
	-11,17	+155,25	-5,58	+38,81	$\xi_{7,4} = -29,751 + K$	$\eta_{7,4} = +68,561 - K$
	-49,87	+189,28	-24,94	+47,32	$\xi_{8,5} = +4,811 - K$	$\eta_{8,5} = +52,131 - K$

МАСТАР
 НАУЧНО-ИССЛЕДОВАТЕЛЬСКОГО
 ЦЕНТРА АКАДЕМИИ НАУК
 КНИЖНИЦА

$\xi_{1,5} = +23,561$ $\eta_{1,5} = +502,68 - 8K$

$B_c + B_a$ $A_b + A_c$ $\frac{1}{2}(B_c + B_a)$ $\frac{1}{4}(A_b + A_c)$ ξ_{bc} η_{bc}



$-56,75$ $+209,72$ $-28,38$ $+52,43$ $\xi_{5,10} = -4,81l + K$ $\eta_{5,10} = -52,13l + K$



$-15,04$ $+213,93$ $-7,55$ $+53,48$ $\xi_{10,10} = -19,47l + K$ $\eta_{10,10} = -72,95l + K$



$-10,94$ $+204,05$ $-5,47$ $+51,01$ $\xi_{10,15} = -27,41l + K$ $\eta_{10,15} = +78,42l - K$



$+4,92$ $+209,55$ $+2,46$ $+52,39$ $\xi_{15,15} = -28,49l + K$ $\eta_{15,15} = -80,88l + K$



$+8,13$ $+227,00$ $+4,07$ $+56,75$ $\xi_{15,20} = -20,06l + K$ $\eta_{15,20} = +76,81l - K$



$+18,97$ $+241,32$ $+9,49$ $+60,33$ $\xi_{20,20} = -25,97l + K$ $\eta_{20,20} = -86,30l + K$



$+28,08$ $+266,45$ $+14,04$ $+66,61$ $\xi_{20,25} = -5,65l + K$ $\eta_{20,25} = +72,26l - K$



$+41,83$ $+302,01$ $+20,92$ $+75,50$ $\xi_{25,25} = -17,68l + K$ $\eta_{25,25} = -93,18l + K$



$+43,82$ $+341,48$ $+21,91$ $+85,37$ $\xi_{25,30} = +14,10l + K$ $\eta_{25,30} = +71,27l - K$

$\xi_{5,30} = -163,52l + 10K$ $\eta_{5,30} = -6,18$

		$B_c + B_a$	$A_b + A_c$	$\frac{1}{2}(B_c + B_a)$	$\frac{1}{4}(A_b + A_c)$	ξ_{bc}	η_{bc}
+K		+7,41	+225,41	+3,71	+56,35	$\xi_{I,2} = K$ $\xi_{I,6} = -22,73 + K$	$\eta_{I,2} = +75,37L - K$ $\eta_{I,6} = -79,08L + K$
-K		+20,30	+182,08	+10,15	+45,52	$\xi_{II,6} = -23,41 + K$	$\eta_{II,6} = +68,93 - K$
+K		+0,06	+134,19	+0,03	+33,55	$\xi_{III,6} = -35,41 + K$	$\eta_{III,6} = -68,96 + K$
-K		+14,61	+123,57	+7,31	+30,89 +40,89	-30,76 $\xi_{IV,6} = -20,76 + K$	$\eta_{IV,6} = +61,65 - K$
+K		+19,42	+138,74	+9,71	+34,69 +44,69	-36,67 $\xi_{V,6} = -26,67 + K$	$\eta_{V,6} = -71,36 + K$
-K		+22,88	+163,01	+11,44	+40,75	$\xi_{VI,6} = -19,17 + K$	$\eta_{VI,6} = +59,92 - K$
+K		+31,53	+227,54	+15,77	+56,89	$\xi_{VII,6} = -18,80 + K$	$\eta_{VII,6} = -75,69 + K$
-K		+10,01	+281,26	+5,01	+70,32	$\xi_{VIII,6} = -0,29 + K$	$\eta_{VIII,6} = +70,61 - K$
+K		+11,33	+356,06	+5,67	+89,02	$\xi_{IX,6} = +12,74 + K$	$\eta_{IX,6} = -76,28 + K$
-K						-174,50 + 10K $\xi_{X,6} = -154,50 + 10K$	$\eta_{X,6} = -34,89$

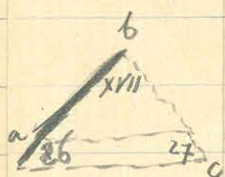
$(B_c + B_a)$ $(A_b + A_c)$ $\frac{1}{2}(B_c + B_a)$ $\frac{1}{4}(A_b + A_c)$

ξ_{6c}

η_{6c}

$\xi_{26 \times VII} = -12,74 - K$

$\eta_{26 \times VII} = +76,28 - K$



-27,03

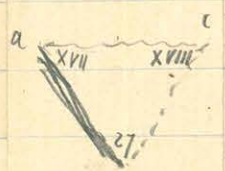
+256,99

-13,52

+64,25

$\xi_{XVII 27} = -0,78 + K$

$\eta_{XVII 27} = +65,03 - K$



-2,99

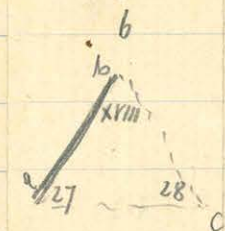
+199,94

-1,50

+49,99

$\xi_{27 \times XVIII} = -0,72 - K$

$\eta_{27 \times XVIII} = +49,27 - K$



-6,95

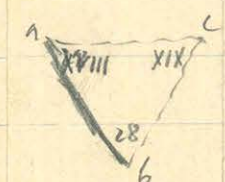
+149,55

-3,48

+37,39

$\xi_{XVIII 28} = -2,76 + K$

$\eta_{XVIII 28} = +40,15 - K$



+24,23

+163,09

+12,12

+40,77

$\xi_{28 \times XIX} = +14,88 - K$

$\eta_{28 \times XIX} = +55,65 - K$



+58,59

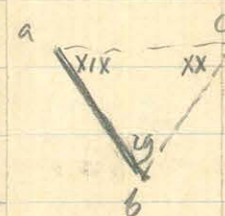
+240,52

+29,30

+60,13

$\xi_{XIX 29} = +14,42 + K$

$\eta_{XIX 29} = +45,71 - K$



+52,77

+289,80

+26,39

+72,45

$\xi_{29 \times XX} = +11,97 - K$

$\eta_{29 \times XX} = +84,42 - K$



+65,97

+341,48

+32,99

+85,37

$\xi_{XX 30} = +21,02 + K$

$\eta_{XX 30} = +64,35 - K$

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$\xi_{26,30} = +45,29$

$\eta_{26,30} = +480,86 - 8K$

$$-\alpha \left(\frac{1}{\rho_1} + \frac{1}{\rho_2} \right) d\alpha \delta l - 2\sigma g \delta n \delta l + \frac{\partial \alpha}{\partial \beta} \delta n \delta l = 0 \quad \text{Er hipoboloid}$$

$$\frac{\partial \alpha}{\partial \beta} - \alpha \left(\frac{1}{\rho_1} + \frac{1}{\rho_2} \right) = 2\sigma g - \frac{\partial \alpha}{\partial \beta} \quad \text{elbat}$$

$$\frac{1}{\rho_1} + \frac{1}{\rho_2} = -\frac{2\sigma g}{\alpha} + \frac{1}{\alpha} \frac{\partial \alpha}{\partial \beta}$$

$$\alpha'' - \alpha'$$

$$\frac{\partial \alpha}{\partial \beta} \delta n \delta l$$

$$\frac{1}{\rho_1} + \frac{1}{\rho_2} = -\frac{2\sigma g}{\alpha} z + \frac{1}{\alpha} \frac{\partial \alpha}{\partial \beta}$$

$$-\frac{2\sigma g}{\alpha} = \frac{2}{a^2}$$

$$a^2 = -\frac{2\alpha}{2\sigma g}$$

~~$$\frac{1}{\alpha} \frac{\partial \alpha}{\partial \beta} = B$$~~

$$\frac{1}{\alpha} \frac{\partial \alpha}{\partial \beta} = B$$

~~$$\frac{\sigma g}{\alpha} = B$$~~

~~$$\frac{1}{\rho_1} + \frac{1}{\rho_2} = \frac{2z}{a^2} + B$$~~

$$\frac{1}{\rho_1} + \frac{1}{\rho_2} = \frac{2z}{a^2} + B$$

$$= \frac{2}{a^2} \left(z + \frac{a^2 B}{2} \right)$$

$$u = 1 + \left(\frac{dz}{dx} \right)^2$$

$$\frac{du}{u^2} = \frac{2z dz}{a^2} + B dz$$

$$\frac{du}{u^2} = \frac{du}{2u^2}$$

$$-\cos \varphi = \frac{z^2}{a^2} + Bz + C$$

$$\text{ha } z=0 \quad \varphi=0 \quad C=-1$$

$$1 - \cos \varphi = \frac{z^2}{a^2} + Bz$$

$$-\cos \varphi = \frac{z^2}{a^2} + Bz - 1$$

$$2a^2 \sin^2 \frac{\varphi}{2} = z^2 + Ba^2 z$$

$$\frac{dz}{dx} = \operatorname{tg} \varphi = \frac{\sqrt{1 - \cos^2 \varphi}}{\cos \varphi} \quad \text{Aböl}$$

$$z = -\frac{Ba^2}{2} \pm \sqrt{\frac{Ba^4}{4} + 2a^4 \sin^2 \frac{\varphi}{2}}$$

a gyök negatív csak az első
munka első jel ha z negatív
más jel ha z pozitív

$$\frac{dz}{dx} = \operatorname{tg} \varphi$$

$$\pm \frac{1}{2} \frac{1}{\sqrt{\frac{Ba^4}{4} + 2a^4 \sin^2 \frac{\varphi}{2}}} \cdot 2a^4 \sin \frac{\varphi}{2} \cos \frac{\varphi}{2} \frac{d\varphi}{dx} = \operatorname{tg} \varphi$$

$$\pm \frac{1}{2} \frac{a^2}{\sqrt{\frac{Ba^4}{4} + 2a^4 \sin^2 \frac{\varphi}{2}}} \frac{d\varphi}{dx} = \frac{1}{\cos \varphi}$$

$$dx = \pm \frac{a^2 \cos \varphi d\varphi}{\sqrt{\frac{Ba^4}{4} + 2a^4 \sin^2 \frac{\varphi}{2}}}$$

virtus

$$-1 - \cos \varphi = \frac{z^2}{a^2} + Bz - 1$$

$$x = \pm \frac{a^2 \cos \varphi}{2 \sqrt{\frac{\beta^2 a^4}{4} + 2a^2 \sin^2 \frac{\varphi}{2}}} d\varphi$$

$E(\varphi) = \text{Működési faji}$

ha $\beta = 0$ akkor.

$F(\varphi)$ első faji

k modulus

~~$$dx = \pm \frac{a^2}{2} \frac{\cos \varphi}{\sin \frac{\varphi}{2}} d\varphi$$~~

$$dx = \pm \frac{a}{2} \frac{\cos \varphi}{\sin \frac{\varphi}{2}} d\varphi$$

$$\cos \varphi = \cos^2 \frac{\varphi}{2} - \sin^2 \frac{\varphi}{2}$$

$$= 1 - 2 \sin^2 \frac{\varphi}{2}$$

$$dx = \pm \frac{a}{2\sqrt{2}} \left[\frac{d\varphi}{\sin \frac{\varphi}{2}} - 2 \sin \frac{\varphi}{2} d\varphi \right]$$

$$x = \pm \frac{a}{2\sqrt{2}} \left[\int \frac{d\varphi}{\sin \frac{\varphi}{2}} - 2 \int \sin \frac{\varphi}{2} d\varphi \right]$$

$$\int \frac{dx}{\sin x} = \log \frac{x}{2} \quad \frac{\varphi}{2} = x \quad d\varphi = 2dx$$

$$\int \frac{d\varphi}{\sin \frac{\varphi}{2}} = 2 \log \frac{x}{2} = 2 \log \frac{\varphi}{4}$$

$$\int \sin \frac{\varphi}{2} d\varphi = -2 \cos \frac{\varphi}{2}$$

$$x = \pm \frac{a}{2\sqrt{2}} \left[2 \log \frac{\varphi}{4} + 4 \cos \frac{\varphi}{2} \right]$$

$$x = \pm \frac{a}{2} \sqrt{2} \left[\log \frac{\varphi}{4} + 2 \cos \frac{\varphi}{2} \right]$$

$$x = \pm a \sqrt{\frac{2}{2}} \left(\log \frac{\varphi}{4} + \cos \frac{\varphi}{2} \right)$$

$$dx = \pm \frac{1}{2} \frac{a^2 \cos \varphi}{\sqrt{\frac{\beta^2 a^4}{4} + 2a^2 \sin^2 \frac{\varphi}{2}}} d\varphi$$

$$dx = \pm \frac{1}{2} \frac{a^2}{\beta a^2} \frac{\cos \varphi}{\sqrt{1 + \frac{2a^2}{\beta^2 a^4} \sin^2 \frac{\varphi}{2}}} d\varphi = \pm \frac{1}{\beta} \frac{\cos \varphi}{\sqrt{1 + \frac{8}{\beta^2 a^2} \sin^2 \frac{\varphi}{2}}} d\varphi$$

$$\frac{\varphi}{2} = \varphi \quad d\varphi = 2d\varphi$$

$$dx = \pm \frac{2}{\beta} \frac{\cos 2\varphi}{\sqrt{1+m \sin^2 \varphi}} d\varphi \quad \underline{\underline{m = \frac{8}{\beta^2 a^2}}}$$

$$\varphi = \frac{\pi}{2} - \delta$$

$$dx = \pm \frac{2}{\beta} \frac{+\cos 2\delta}{\sqrt{1+m \cos^2 \delta}} d\delta = \pm \frac{2}{\beta} \frac{\cos 2\delta}{\sqrt{1+m - m \sin^2 \delta}}$$

$$dx = \pm \frac{2}{\beta \sqrt{1+m}} \frac{\cos 2\delta}{\sqrt{1 - \frac{m}{1+m} \sin^2 \delta}} \quad \underline{\underline{\frac{m}{1+m} = k^2}}$$

$$dx = \pm \frac{2}{\beta \sqrt{1+m}} \left[\frac{d\delta}{\sqrt{1-k^2 \sin^2 \delta}} - 2 \frac{\sin^2 \delta}{\sqrt{1-k^2 \sin^2 \delta}} d\delta \right]$$

Emmeses
L. 426

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$$x - x' = \frac{2}{\beta \sqrt{1+m}} \left\{ \int_0^{\delta'} \frac{d\delta}{\sqrt{1-k^2 \sin^2 \delta}} - \int_0^{\delta} \frac{d\delta'}{\sqrt{1-k^2 \sin^2 \delta}} \right. \\ \left. - 2 \int_0^{\delta} \frac{\sin^2 \delta}{\sqrt{1-k^2 \sin^2 \delta}} d\delta + 2 \int_0^{\delta'} \frac{\sin^2 \delta}{\sqrt{1-k^2 \sin^2 \delta}} d\delta \right\}$$

Ergebnis Seite 159

$$x - x' = \frac{2}{\beta \sqrt{1+m}} \left\{ F(\delta') - F(\delta) - 2 \frac{E(\delta') - E(\delta)}{k^2} + 2 \frac{F(\delta) - E(\delta)}{k^2} \right\}$$

$$\frac{m}{1+m} = k^2$$

$$\frac{1}{m} + 1 = \frac{1}{k^2}$$

$$\frac{1}{m} = \frac{1}{k^2} - 1 = \frac{1-k^2}{k^2}$$

$$m = \frac{k^2}{1-k^2}$$

$$1+m = \frac{1}{1-k^2} \quad \sqrt{1+m} = \frac{1}{\sqrt{1-k^2}}$$

$$x - x' = 2$$

$$\beta = \frac{\sqrt{8}}{a \sqrt{m}} = \frac{\sqrt{8}}{a k} \sqrt{1-k^2}$$

$$a^2 k^2 \beta^2 = 8(1-k^2) \\ = 8 - 8k^2$$

$$\frac{1}{\beta} = \frac{a k}{\sqrt{8}} \frac{1}{\sqrt{1-k^2}}$$

$$\frac{1}{\sqrt{1+m}} = \sqrt{1-k^2}$$

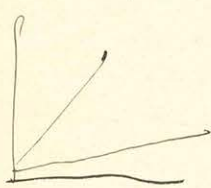
$$a^2 k^2 \beta^2 + 8k^2 = 8$$

$$k^2(8 + a^2 \beta^2) = 8$$

$$x - x' = \frac{a k}{\sqrt{2}} \left\{ F(\delta') - F(\delta) \right\}$$

$$x - x' = \frac{a}{\sqrt{2}} \left\{ k F(\delta') - k F(\delta) \right\}$$

$$\frac{(x - x') \sqrt{2}}{a} = k F(\delta') - k F(\delta) - \frac{2}{k} (E(\delta') - E(\delta)) - (F(\delta) - E(\delta))$$



$$\delta = \frac{\pi}{2} - \varphi \quad \left| \quad \delta = \frac{\pi}{2} - \frac{\varphi}{2} \right.$$

$$\varphi' = 40^\circ$$

$$\varphi = 10^\circ$$

$$\delta' = 70^\circ$$

$$\delta = 85^\circ$$

1. ent. $\varphi' = 40^\circ$ $\varphi = 20^\circ$ $\delta = 70^\circ$ $\delta' = 80^\circ$ $a = 2,441$

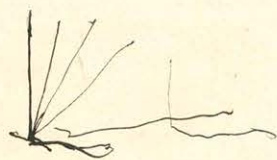
$$\delta' = 70^\circ$$

$$\delta = 80^\circ$$

Ergebnis

$$x - x' = \frac{1,95}{500} = 0,39$$

$$\frac{(x - x') \sqrt{2}}{a} = 0,2259$$



$$\delta = \frac{\pi}{2} - \frac{\varphi}{2}$$

$x_i - x_0 = -\frac{2}{\beta\sqrt{1+m}} \left\{ \int_{\varphi_0}^{\varphi} \frac{d\varphi}{\sqrt{1-k^2\sin^2\varphi}} - 2 \int_{\varphi_0}^{\varphi} \frac{\sin^2\varphi d\varphi}{\sqrt{1-k^2\sin^2\varphi}} \right\}$
 $\varphi = \frac{\pi}{2} - \frac{i}{2}$
 $k^2 = \frac{m}{1+m}$
 $m = \frac{8}{\beta^2 a^2}$
 $\beta = \frac{1}{a} \frac{da}{dD}$

und jetzt balanc

$x_i - x_0 = +\frac{2}{\beta\sqrt{1+m}} \left\{ \int_0^{\varphi} \frac{d\varphi}{\sqrt{1-k^2\sin^2\varphi}} - 2 \int_0^{\varphi} \frac{\sin^2\varphi d\varphi}{\sqrt{1-k^2\sin^2\varphi}} \right\}$
 $\varphi = \frac{\pi}{2} - \frac{i}{2}$

für $m > 1$

$dx = +\frac{2}{\beta} \left\{ \frac{d\varphi}{\sqrt{1-m\sin^2\varphi}} - 2 \frac{\sin^2\varphi d\varphi}{\sqrt{1-m\sin^2\varphi}} \right\}$
 $m = \frac{8}{a^2 a^2}$

bei veränderung abh. potentiell

$\frac{1}{\rho} = \frac{a}{a^2}$

$z = a^2 \sin^2 \frac{\varphi}{2}$

$\frac{1}{\rho} = \frac{2a^2 \sin^2 \frac{\varphi}{2}}{a}$

$x_i - x_0 = \frac{2}{\beta a m} \left\{ \int_{\varphi_0}^{\varphi_i} \frac{d\varphi}{\sqrt{1-\frac{1}{m}\sin^2\varphi}} - \frac{2}{m} \int_{\varphi_0}^{\varphi_i} \frac{\sin^2\varphi d\varphi}{\sqrt{1-\frac{1}{m}\sin^2\varphi}} \right\}$

~~$\sin \varphi = \frac{1}{m} \sin \varphi$~~
 $\sin \varphi = m \sin \varphi$
 $i = 0 \quad \varphi = 0 \quad \varphi = 0$

$\sin \varphi = -k \sin \frac{i}{2}$
 $\sin \varphi = k \sin \frac{i}{2}$

$x_i - x_0 = \frac{2}{\beta a m} \int_0^{\varphi_i} \frac{d\varphi}{\sqrt{1-\frac{1}{m}\sin^2\varphi}} - \frac{2}{m} \int_0^{\varphi_i} \frac{\sin^2\varphi d\varphi}{\sqrt{1-\frac{1}{m}\sin^2\varphi}}$

$= -\frac{2}{\beta a m} \left\{ F_{\varphi_i} - \frac{E_{\varphi_i}}{k^2} - 2 F_{\varphi_i} + 2 E_{\varphi_i} \right\}$

$= -\frac{2}{\beta a m} (2 E_{\varphi_i} - F_{\varphi_i})$

$\frac{2,786}{1,787} \frac{m}{a+1} = k^2$
 $m = k^2 + m k^2$
 $\frac{1}{1+m} = 1 - k^2$

$\frac{m}{1+m} = \frac{3}{4}$

$m = \frac{3}{4} + \frac{3}{4} m \quad m = 3 \quad \frac{8}{3}$

$\frac{1}{4} \quad 0,75 \quad 0,75 \quad 5,96$
 $9,38$

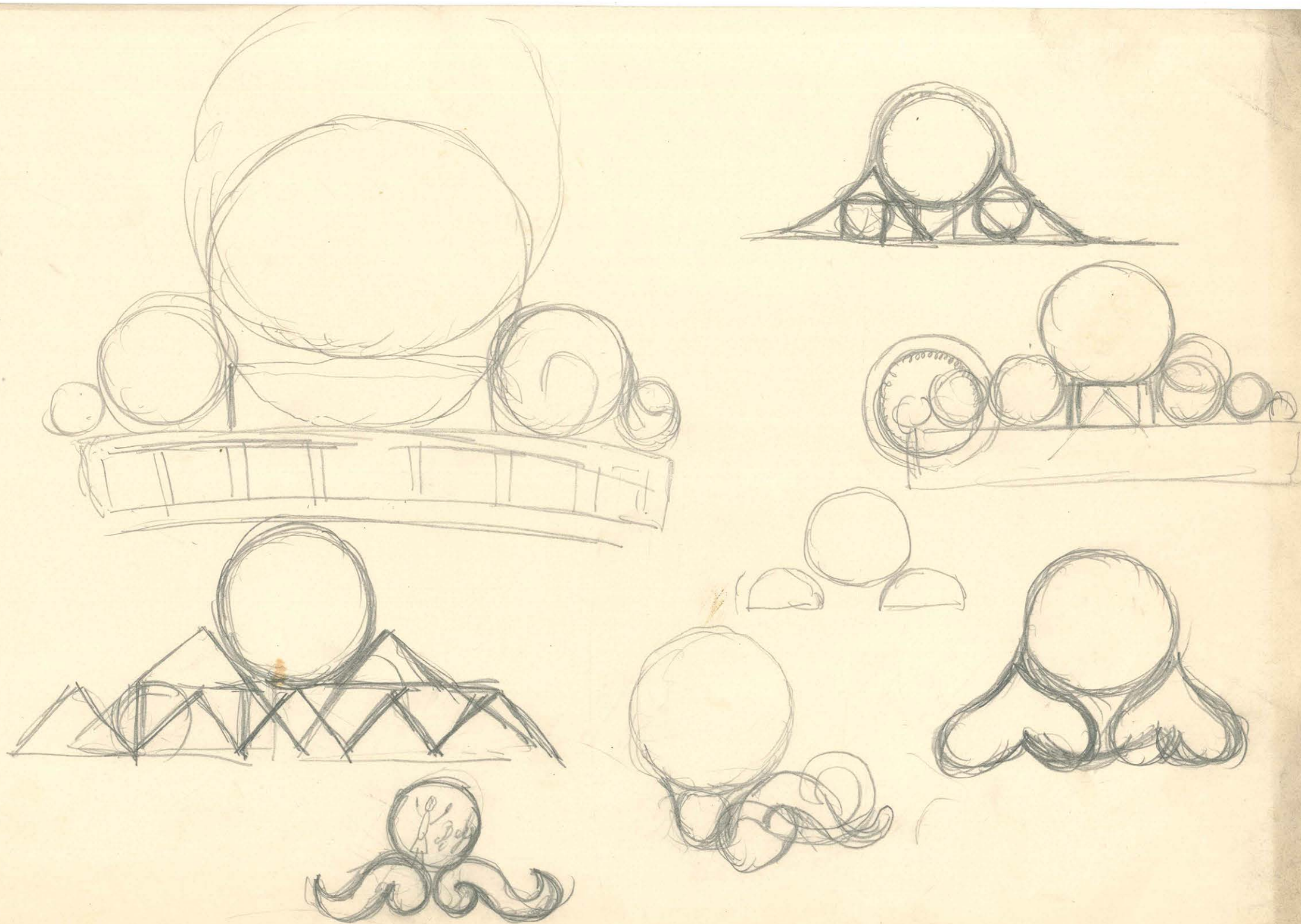
$\frac{2a}{m} \quad \frac{a}{\sqrt{2}}$

$m = \frac{k^2}{1-k^2}$

$\frac{m\sqrt{2}}{k} \left\{ \right\} = \frac{a}{\sqrt{2}} \left\{ \right\}$

0,54
 3,24
 $324 / 860 / 286 \quad | \quad 714 / 25$
 $678 \quad | \quad 572$
 $1320 \quad | \quad 1420$
 1430

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$$\int \frac{d\varphi}{\sqrt{1-k^2 \sin^2 \varphi}}$$

$$k > 1, \quad k^2 \sin^2 \varphi = \varepsilon^2 \sin^2 \psi$$

$$\frac{1}{k} = \varepsilon \quad \int \sqrt{1-k^2 \sin^2 \varphi} = k \sqrt{\frac{1}{k^2} - \sin^2 \psi}$$

$$k^2 \sin^2 \varphi < 1$$

$$\sin^2 \psi = \varepsilon^2 \sin^2 \varphi \cdot \frac{1}{k^2}$$

$$k^2 \sin^2 \varphi$$

$$\sin \varphi_0$$

$$\# \begin{cases} \sin \varphi_0 \cdot \sin \psi = \sin \varphi \\ k^2 \sin^2 \varphi_0 \sin^2 \psi = \sin^2 \varphi k^2 \end{cases}$$

$$k = \frac{1}{\sin \varphi_0}$$

$$k \sin \varphi = \sin \psi$$

$$k \cos \varphi d\varphi = \cos \psi d\psi$$

$$d\varphi = \frac{1}{k} \frac{1}{\cos \varphi} \cdot \frac{\cos \psi d\psi}{\cos \psi}$$

$$\int \frac{d\varphi}{\sqrt{1-k^2 \sin^2 \varphi}}$$

$$\int \frac{d\varphi \sin^2 \varphi}{\sqrt{1-k^2 \sin^2 \varphi}}$$

Új változó ψ :

$$\sin \psi = k \sin \varphi; \quad \sin \varphi = \frac{1}{k} \sin \psi$$

$$\sqrt{1-k^2 \sin^2 \varphi} = \sqrt{1-\sin^2 \psi}$$

$$\sqrt{1-k^2 \sin^2 \varphi} = \cos \psi$$

$$d\varphi = \frac{1}{k} \frac{\cos \psi}{\sqrt{1-\frac{1}{k^2} \sin^2 \psi}} d\psi$$

$$\cos \varphi = \sqrt{\frac{k^2 - \sin^2 \psi}{k}}$$

$$\cos \varphi = \sqrt{1 - \frac{1}{k^2} \sin^2 \psi}$$

$$\cos \varphi d\varphi = \frac{1}{k} \cos \psi d\psi$$

$$d\varphi = \frac{1}{k} \frac{\cos \psi}{\cos \varphi} d\psi$$

$$\int_0^{\varphi} \frac{d\varphi}{\sqrt{1-k^2 \sin^2 \varphi}} = \frac{1}{k} \int_0^{\psi} \frac{d\psi}{\sqrt{1-\frac{1}{k^2} \sin^2 \psi}}$$

$$\int_0^{\varphi} \frac{d\varphi \sin^2 \varphi}{\sqrt{1-k^2 \sin^2 \varphi}} = \frac{1}{k^3} \int_0^{\psi} \frac{d\psi \sin^2 \psi}{\sqrt{1-\frac{1}{k^2} \sin^2 \psi}}$$

$$\frac{1}{k^2} = \varepsilon^2$$

0,066533

0,171122
0,225900
0,054768

$$0,00066533 : 6 = 0,00011089$$

5476800 : 11089 = 493
#20
109120
- 43190

$$0,099981 : 6 = 0,019993 \quad 493$$

79972
179937
59979

7877242

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0,078772
0,766044

19 = 0,844816

1)

$$x_{90} - x_0 = \frac{z}{a\sqrt{1+m}} \left\{ F_{\frac{\pi}{2}} - F_{\frac{\pi}{4}} - \frac{z}{k^2} \left(\left(F_{\frac{\pi}{2}} - F_{\frac{\pi}{4}} \right) - \left(E_{\frac{\pi}{2}} - E_{\frac{\pi}{4}} \right) \right) \right\}$$

$$\beta = \frac{1}{2} \frac{da}{da} \quad m = \frac{8}{13^2 a^2} \quad k^2 = \frac{m}{m+1} \quad \beta = \frac{2\sqrt{2}}{a\sqrt{m}}$$

adit. $k^2 = \frac{1}{m}$ ψ

$$x_i - x_0 = -\frac{z}{a\sqrt{m}} \left\{ F_{\frac{\pi}{2}} - z \left\{ F_{\frac{\pi}{2}} - E_{\frac{\pi}{2}} \right\} \right\} = -\frac{z}{a\sqrt{m}} \left(2E_{\frac{\pi}{2}} - F_{\frac{\pi}{2}} \right)$$

$$\sin \psi = m \sin \varphi \quad \varphi = \frac{i}{2}$$

3) ha $m < 1$ akkor $k^2 = m$ és $\varphi = \frac{i}{2}$

$$x_i - x_0 = -\frac{z}{a} \left\{ F_{\frac{\pi}{2}} - \frac{z}{m} \left(F_{\frac{\pi}{2}} - E_{\frac{\pi}{2}} \right) \right\}$$

1) $x_{90} - x_0 = \frac{a\sqrt{m}}{\sqrt{2}\sqrt{1+m}} \left\{ \right\}$

2) $x_i - x_0 = -\frac{z}{\sqrt{2}} \left\{ \right\}$

$m > 1$ $\frac{x_{90} - x_0}{a} = \frac{x_i - x_0}{a}$

$k^2 = \frac{m}{m+1}$ $\frac{x_{90} - x_0}{a} = \frac{1}{\sqrt{2}} \left\{ \right\}$ $k^2 = \frac{1}{m}$ $\sin \psi = m \sin \varphi$

$m < 1$

3) $x_{90} - x_0 = x_i - x_0 = -\frac{a\sqrt{m}}{\sqrt{2}} \left\{ F_{\frac{\pi}{2}} - \frac{z}{m} \left(F_{\frac{\pi}{2}} - E_{\frac{\pi}{2}} \right) \right\}$ $k^2 = m$

$\frac{x_{90} - x_0}{a} = -\frac{\sqrt{m}}{\sqrt{2}} \left\{ F_{\frac{\pi}{2}} - \frac{z}{m} \left(F_{\frac{\pi}{2}} - E_{\frac{\pi}{2}} \right) \right\}$ $k^2 = m$

Integral

$$x_{10} - x_0 = \frac{2}{D\sqrt{1+m}} \left\{ F_{\frac{\pi}{2}} - F_{\frac{\pi}{4}} - \frac{2}{k^2} \left((F_{\frac{\pi}{2}} - F_{\frac{\pi}{4}}) - (\mathcal{E}_{\frac{\pi}{2}} - \mathcal{E}_{\frac{\pi}{4}}) \right) \right\}$$

Integral a) elvált negatív értéke

Integral

Integral

$$x_{10} - x_0 =$$

$$- \frac{1}{k} \left\{ F_{\frac{\pi}{2}} - F_{\frac{\pi}{4}} - \frac{2}{k^2} \left((F_{\frac{\pi}{2}} - F_{\frac{\pi}{4}}) - (\mathcal{E}_{\frac{\pi}{2}} - \mathcal{E}_{\frac{\pi}{4}}) \right) \right\} = 2\mathcal{E}_{\frac{1}{m}}\psi_i - F_{\frac{1}{m}}\psi_i$$

48
56
104

$$k = \sqrt{\frac{m}{1+m}} \quad m = \frac{8}{D^2 a^2} \quad \beta = \frac{1}{d} \frac{da}{d\beta}$$

32
26
58
1,23
2,58

$$m = 3 \quad \frac{1}{4}$$

$$\sin \psi = m \sin \frac{\psi}{2}$$

$$\sin \epsilon = 60^\circ$$

diadivizak értéke

$$k = 0,866 \quad k^2 = 0,75 \quad m = 3$$

$$k = \frac{3}{4} = \sin \epsilon \quad \frac{1}{m} = \frac{1}{3}$$

$$\sqrt{\frac{1}{m}} = 0,577 = \sin \epsilon \quad \epsilon = 35^\circ$$

$$F_{k\frac{\pi}{2}} = 2,1565$$

$$\mathcal{E}_{k\frac{\pi}{2}} = 1,2111$$

$$F_{k\frac{\pi}{4}} = 0,85$$

$$\mathcal{E}_{k\frac{\pi}{4}} = 0,73$$

$$F' - F = 1,30$$

$$0,50$$

$$98$$

$$0,8$$

$$820$$

$$16,4$$

$$0,866 \quad | \quad 0,8300 \quad | \quad 0,96$$

$$1656$$

$$-2,13$$

$$1794$$

$$1,30$$

$$5060$$

$$-0,83$$

$$5196$$

$$0,96 \quad \frac{219}{1,30} = 89$$

$$\text{ahhoz } \psi_i = 70^\circ \quad \sin \psi_i = 0,94$$

$$\sin \frac{\psi_i}{2} = 0,913$$

$$\frac{\psi_i}{2} = 18^\circ 20'$$

$$i = 36^\circ 10'$$

a) Integral

$$+ 0,96 = 2\mathcal{E}_{\frac{1}{m}}\psi_i - F_{\frac{1}{m}}\psi_i$$

$$\psi_i = 70^\circ \quad \gamma = \gamma = 2,28 - 1,318 + 97$$

$$\psi_i = 60^\circ \quad \gamma = 1,98 - 1,10 = 0,88$$

$$\psi_i = 80^\circ \quad \gamma = 2,58 - 1,54 = 1,04$$

V3

866 / 890 / 1084 / 720 / 2400 / 4 / 306 / 14 / 765 / 0,543 / 70 / 500-67,60

$$\frac{d(\cos \delta)}{du} + \frac{\sin \delta}{u} = \frac{2r}{a^2}$$

$$\frac{d\delta}{du} + \frac{\delta}{u} = \frac{2r}{a^2}$$

$$\frac{d\delta}{\delta} \quad \frac{du}{\delta} \quad \left\{ \frac{d\delta}{\delta} + \frac{du}{u} = \frac{2r}{a^2} \frac{du}{\delta} \right.$$

$$\frac{d\frac{1}{\rho}}{du} + \frac{d(\cos \delta)}{u du} - \frac{\sin \delta}{u^2} = \frac{2}{a^2} \delta$$

$$\frac{d\delta}{du} = \delta$$

$$d\delta = \frac{d\delta}{\delta} du$$

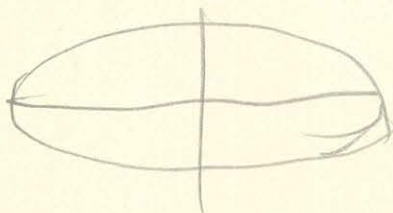
$$\frac{d(\cos \delta)}{du}$$

$$\log \rho = \int \frac{u du}{a^2 \delta^2} = \frac{u^2}{2a^2 \delta^2}$$

$$\frac{2}{a^2} \delta$$

$$\frac{d\frac{1}{\rho}}{du} + \frac{d\delta}{du} \frac{1}{u} - \frac{\delta}{u^2} = \frac{2}{a^2} \delta$$

$$\frac{1}{u} + \frac{\delta}{u^2} = \frac{2}{a^2} \delta$$



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mind $\frac{d\delta}{du}$
 $\frac{2}{a^2} \delta$
 $\frac{d(\cos \delta)}{du}$



$$\frac{d\frac{1}{\rho}}{du} + \frac{\cos \delta}{u} \frac{d\delta}{du} - \frac{\sin \delta}{u^2} = \frac{2}{a^2} \delta$$

$$\frac{d\frac{1}{\rho}}{du} + \frac{1}{u} \frac{1}{\rho} = \frac{2}{a^2} \delta + \frac{\sin \delta}{u^2}$$

$$\frac{du}{\rho} \quad \frac{d\frac{1}{\rho}}{\frac{1}{\rho}} + \frac{du}{u} = \frac{2}{a^2} \delta \frac{du}{\rho} + \frac{\sin \delta}{u^2} \frac{du}{\rho}$$

$$d\left(\log \frac{u}{\rho}\right) = \left(\frac{du}{u}\right) \left(\frac{\sin \delta}{\rho}\right) + \frac{2}{a^2} \frac{(du)^2 \sin \delta}{a^2 \rho^2 \delta}$$

folgt jedoch

$$x_{90} - x_0 = \frac{2}{B\sqrt{1+m}} \left\{ \int_{-\frac{\pi}{2}}^0 \frac{d\varphi}{\sqrt{1-k^2 \sin^2 \varphi}} - 2 \int_{-\frac{\pi}{2}}^0 \frac{\sin^2 \varphi d\varphi}{\sqrt{1-k^2 \sin^2 \varphi}} \right\}$$

$$= \frac{2}{B\sqrt{1+m}} \left\{ \int_0^{\frac{\pi}{2}} \frac{d\varphi}{\sqrt{1-k^2 \sin^2 \varphi}} - 2 \int_0^{\frac{\pi}{2}} \frac{\sin^2 \varphi d\varphi}{\sqrt{1-k^2 \sin^2 \varphi}} \right\}$$

$$\left\{ F\left(\frac{\pi}{2}\right) - 2 \frac{E\left(\frac{\pi}{2}\right) - \mathcal{E}\left(\frac{\pi}{2}\right)}{k^2} \right\}$$

$$2,1565 - 2 \frac{2,1565 - 1,2111}{0,75}$$

$k = 487$ $\varepsilon = 60$
 $k^2 = 0,75$

$$\begin{array}{r} 2,1565 - 1,2111 \\ \underline{0,9454} \\ 1,8,9 \end{array}$$

0,3000

k^2 $k(\dots)$

$$\begin{array}{r} -0,2222 \\ + 0,4444 \\ \hline 0,2222 \end{array}$$

$$\begin{array}{r} 7,36 \\ 2,52 \\ \underline{2,16} \\ 0,36 \end{array}$$

sum $\frac{k^2 A}{k} = \frac{k}{2} \dots$

$$\begin{array}{r} 592 \\ + 0,3181 \\ \hline 0,274 \\ \underline{0,87} \\ 191^2 \\ \underline{2192} \\ 208 \end{array}$$

0,148
 $592 - 0,3184$

$$\begin{array}{r} 2,1565 \\ 2,588 \\ \hline 0,432 \end{array}$$

$$\begin{array}{r} 2,1565 \\ 1211 \\ \hline 0,9454 \\ 7,7632 \end{array}$$

form.

$$x_{90} - x_0 = \frac{2}{B\sqrt{1+m}} \left\{ \int_{-\frac{\pi}{2}}^{\frac{\pi}{4}} \dots - 2 \int_{-\frac{\pi}{2}}^{\frac{\pi}{4}} \dots \right\}$$

$$= -\frac{2}{B\sqrt{1+m}} \left\{ \int_{-\frac{\pi}{4}}^{-\frac{\pi}{2}} \dots \right\} = -\frac{2}{B\sqrt{1+m}} \left\{ \int_0^{\frac{\pi}{4}} \dots - \int_0^{-\frac{\pi}{4}} \dots \right\}$$

$$x_{90} - x_0 = \frac{2}{B\sqrt{1+m}} \left\{ F\left(\frac{\pi}{2}\right) - F\left(\frac{\pi}{4}\right) - \frac{2}{k^2} \left((E\left(\frac{\pi}{2}\right) - E\left(\frac{\pi}{4}\right)) - (\mathcal{E}\left(\frac{\pi}{2}\right) - \mathcal{E}\left(\frac{\pi}{4}\right)) \right) \right\}$$

$$\frac{2\sqrt{m}}{B\sqrt{1+m}}$$

$F\left(\frac{\pi}{2}\right) = 2,166$

$F\left(\frac{\pi}{4}\right) = 0,85$
 $\frac{1,31}{1,31}$

$E\left(\frac{\pi}{2}\right) = 1,24$

$E\left(\frac{\pi}{4}\right) = 0,72$
 $\frac{0,49}{0,49}$

$\frac{1,31}{1,31} = \frac{1,31}{1,31}$

$$\begin{array}{r} 2,15 \\ 1,31 \\ \hline 0,84 \end{array}$$

$$\begin{array}{r} 0,46 \\ 2,15 \\ \hline 1,69 \end{array}$$

$$\begin{array}{r} 1,31 \\ 49 \\ \hline 0,82 \end{array}$$

$\frac{1}{k} \{$

$$x_n - x_0 = \frac{a \cdot k}{\sqrt{k}} \{ \}$$

$$\frac{x_n - x_0}{a} = \frac{k}{\sqrt{k}} \{ \}$$

$$= \frac{k^2}{\sqrt{k}} \cdot \frac{1}{k} \{ \}$$

2,88 | 0,72

141 | 0,20 / 0,510

150
90

0,96

2,78 | 0,695

141 | 0,695 / 0,493

1310
1255
55

$$\frac{m}{m+1} = \tan^2 \epsilon$$

$$m = m \tan^2 \epsilon + m \tan^2 \epsilon$$

$$m = \frac{m \tan^2 \epsilon}{1 - \tan^2 \epsilon}$$

МАГЯК
ЗУДОМЕРЪОС АКАДЕМИ
КОРВЯРА

ε	$k = \sin \varepsilon$	$\log K$	$\frac{F_{70} - F_{80}}{F_{70} - F_{80}}$	$\log(F_{70} - F_{80})$	$\frac{E_{70} - E_{80}}{E_{70} - E_{80}}$	$\{F_{70} - F_{80} - (E_{70} - E_{80})\}$	$\log\{ \}$	$\frac{\delta E}{\delta \varepsilon}$
0	0,0000	$-\infty$	-0,1746	0,2420442-1	-0,1746	0	$-\infty$	0
10	0,1736	0,2396702-1	-0,1770	0,2479733-1	-0,1721	-0,0049	0,6901961-3	0,0257
20	0,3420	0,5340517-1	-0,1849	0,2669369-1	-0,1648	-0,0201	0,3031961-2	0,0543
30	0,5000	0,6989700-1	-0,1993	0,2995070-1	-0,1529	-0,0464	0,6665180-2	0,0996 0,0860
40	0,6428	0,8080675-1	-0,2225	0,3473300-1	-0,1369	-0,0856	0,9324738-2	0,1233
50	0,7660	0,8842540-1	-0,2592	0,4136350-1	-0,1176	-0,1416	0,1570633-1	0,1711
60	0,8660	0,9375306-1	-0,3181	0,5025627-1	-0,0959	-0,2222	0,2467441-1	0,2378
70	0,9397	0,9729858-1	-0,4160	0,6190933-1	0,0635 0,0735	-0,3525 -0,3425	0,5471591-1 0,5381327-1	0,3573 0,3439
80	0,9848	0,9933515-1	-0,5735	0,7585334-1	-0,0540	-0,5795	0,7155856-1	0,7674 0,4902
90	1,0000	0,0000000	-0,7008	0,8455941-1	-0,0448	-0,6560	0,8169038-1	0,6112

) 0,0257
) 0,0286
)
) 0,0453
) 0,0317
) 0,0373
) 0,0478
) 0,0665
) 0,1063
) 0,1463
) 1210

hossza $\approx 14'0''$ mp (2 felcsúszás tartamából származik)

18,9		11,5	11,4	
18,5	18,3	11,3	11,3	
18,3	18,2	11,2	11,1	8m. 13,5 sec
18,0	17,8	11,1	10,9	
17,6	17,5	10,9	10,7	
17,4	17,3	10,7	10,6	
17,2	17,0	10,6	10,5	
16,8	16,7	10,5	10,4	4m. 37 sec
16,5	16,5	10,3	10,3	
16,3	16,3	10,2	10,2	
16,0	16,0	10,0	10,0	
15,7	15,7	9,8	9,8	
15,5	15,5	9,7	9,7	7m. 50,5 sec
15,5	15,3			
15,1	15,1			
14,8	14,8	58m. 56,5 sec		
14,6	14,6			
14,4	14,4			
14,2	14,2			
14,0	14,0			
13,7	13,7	4m 39,0 sec		
13,5	13,5			
13,3	13,3			
13,2	13,2			
13,0	13,0			
12,7	12,8	3m 35,5 sec		
12,5	12,5			
12,4	12,4			
12,2	12,3			
12,1	12,1			
11,8	11,9	4m 38,0 sec		
11,7	11,7			
	11,6			

58 long $\tau = \log \frac{37,2}{14,4}$

0,02
 5,9184
 5,2679
 0,6510
 0,0074
 14,0000 / 1892
 74
 660
 592
 680
 666
 140

MAGYAR
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g h 28 Triangels Meyer 28

Balken 30 m 222 lang

Pannin 31 225,7

15,1 15,1

ränd

~~269,1~~ g h 34 m 200

267,4 36 m -

264,2 37 m 20

1 h 10 m ~~268,8~~ all
 2 1/2 percent Kinnens minst ~~268,8~~

t = 22° 3

Balken	g h	30	222,0	lang 58 m	217,2
		38 m	219,7	g h 3 m	217,15
		42 -	218,0	8 m	217,10
		48 -	217,3	18 m	217,15
		50	217,2	32 m	217,25

1 h. 0 h 217,4 (t=22° 3)

225,7 11 m 215,0

Pannin	g h	41	221,7	21 m	214,85
		46	219,1	31 m	215,0
		51 m	218,2	1 h 10	212,9
		56 m	216,4		
		102 1 m	215,9		

6 m 215,4

t = 18
 19,5 20,8 18,9

56

14 m 33
~~16 29.5~~
1 46.5

16, 49.5
18 28.0

1 38.5

21 4.0
22 42.0

1 38.0

23 31
25 8

1 39

98.5 + 20 = 49.5
98 = 49.0
 = 48.5

Large vol - 4.9 amp.

Ms 106/10-11. Ex'tus l. neges jzretci

2 kódsz. bor.

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Detallált víz

Ms 5106 / 10

bet. 10 ar régi I even halmazt víz

Ugyanaz behatárolt víz mint az 9-10' ar erdekl menies horizontális irányban 8 m. thermometer 45491
körlelt a támpontokhoz - csak megjelölték kell követni 545
a vízgőztelken

10 óra 45 m.

h	e	h	e
50 > 603	114 > 561	47 > 609	114 > 558
197 > 564	175 > 561	188 > 609	172 > 610
133 > 564	36 > 611	126 > 562	32 > 610

hagy behatárolt víz 48. folon

A menies 36 m. m. elvált körlelt csethne

h	e	h	e
161 > 636	173 > 574	157 > 634	176 > 572
25 > 636	247 > 574	23 > 634	248
199 > 576	138 > 641	198 > 575	134 > 636

hagy meredebbre víz mint az előző men csethne -

h	e	h	e
80 > 630	110 > 575	70 > 621	112 > 573
200	185 > 575	199 > 621	185 > 573
128 > 572	59 > 624	122 > 577	60 > 625

MAGYAR TUDOMÁNYOS AKADÉMIA KÖNYVTÁRA

Glycerin víznyomása = 1,26

a vízgőztel víz mint az I even

11 óra 40 m.

h	e	h	e
180 > 566	100 > 498	175 > 565	110 > 488
114 > 566	98	110 > 565	98 > 488
115 > 499	153 > 555	109 > 499	142 > 544

Ugyanaz dehtán

3 óra 45 m

h	e	h	e
140 > 546	98 > 485	137 > 545	94 > 490
94	83 > 485	92	84 > 490
108 > 486	118 > 535	103 > 489	117 > 533

Köyön siger ~~fillrätt~~ fillrätt brukar eldat i
 Jul 10 d. i 4 tim. i guld i 11 tim i I i 11 tim July 1, 070

h.	e.	h.	e.	h.
10 155 110	96 170 243	13 1056 107	97 138 247	14 160 109
605 545	544 603		541 541 541	604 551

nyggeny brukar 11 d. e. 90. 15 m.

h.	e.	h.	e.
167 96 84	72 86 150	160 82 80	73 84 143
571 512	514 564	578 502	511 559

h.	e.	h.	e.
152 85 78	70 83 142	158 88 76	71 82 142
567 507	573 559	570 512	511 560

den brukar eldat i 10 tim i 20 tim i 1, 085.
 i. e. 90 m 50 per tim - nytt kört en tim

h.	e.	h.	e.
187 69 20	9 56 142	160 56 17	0 49 135
623 544	547 586	604 539	339 586
150 48 18			
602 530			

in eld i d. e. 10 tim 50 per tim

h.	e.	h.	e.
69 10 246	220 240 58	60 8 244	223 208 55
553 514	520 568	552 514	515 567

in vertelt brukar eldat. i eld i 11 tim 15 m. i 1, 085.
 i. e. 90 m 50 per tim - nytt kört en tim

h.	e.	h.	e.
75 23 16	243 4 65	71 22 13	245 250 68
552 507	511 561	549 509	505 565
12 tim 10 per tim			
h.	e.	h.	e.
57 14 10	236 243 44	57 16 7	237 241 47
543 504	507 554	547 503	504 556

Ar datti delatan 4 ora 15 kor.

h	e	h	e
32) 533	232) 495	31) 535	234) 491
249) 533	227) 495	246) 535	225) 491
6) 493	18) 541	2) 494	20) 545

Ar datti delatan 12 ora 12 kor.

h	e	h	e
248	222	248	219
225) 523	205) 483	222) 526	230) 1
245) 480	226) 521	241) 487	227) 1
			220) 485
			205) 485
			228) 520

12 ora 20 kor.

Invertált toimien epurakolot, fajmlya =
Kirjeteleloe

h	e	h	e
224) 607	68) 532	196) 590	70) 523
117) 607	100) 532	106) 590	93) 523
80) 537	185) 585	76) 530	167) 574

nyyamaq 1 ora 1 ora 15

h	e	h	e
91) 543	39) 497	85) 541	38) 496
48) 543	36) 497	44) 541	34) 496
50) 498	80) 544	48) 496	78) 544

Ar datti delatan 3 ora 35 m.

h	e	h	e
33) 515	27) 476	37) 523	24) 471
18) 515	3) 476	14) 523	245) 471
39) 479	95) 522	38) 476	24) 529

Cyrtos olvat 10 soraaval. fajmlya =
Kirjeteleloe, stammal epitelok

h	e	h	e
224) 669	200) 592	206) 656	198) 593
55) 669	42) 592	50) 656	41) 593
224) 581	183) 641	224) 576	184) 640
106) 602	166) 564	99) 603	163) 562
4) 602	230) 564	246) 603	225) 562
199) 560	227) 618	189) 557	82) 607

Könyv sive ~~filler~~ filler

d. u. 7 o. Nem lehetett építeni, mert a erzős gőzök

h.	e.	h.	e.
182) 550	70) 525	138) 560	65) 570
92) 519	95) 525	78) 560	75) 570
70) 519	150) 555	53) 525	105) 530

innit gőz
be aulik

Ok. 13. d. e. 9 o. 45 m.

h.	e.	h.	e.
50) 520	35) 525	46) 521	33) 479
30) 520	18) 525	25) 521	12) 479
44) 486	45) 527	45) 480	44) 532

d. e. 10 o. 20 m. Tömény frappanókat (alkohol)
felöntve és hűvelve. fajintya =

h.	e.	h.	e.
79) 466	182) 423	73) 463	187) 419
113) 462	105) 423	110) 463	100) 419
201) 462	69) 464	199) 411	68) 468

Ugyanaz. 10 o. 55 p.

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h.	e.	h.	e.
94) 467	178) 420	70) 459	179) 421
107) 467	98) 420	111) 459	100) 421
197) 410	69) 471	199) 412	70) 470

Ugyanaz. 3 o. 40 p. a gőz felületén van egyfajta hűtés és hűtés
a vízben lévő víz felületén.

h.	e.	h.	e.
134) 456	243) 425	135) 457	244) 425
178) 456	168) 425	178) 457	169) 425
5) 423	127) 459	7) 421	126) 457

4 o. 50 a. h. +)

h.	e.	h.	e.
167) 458	26) 423	173) 463	22) 427
211) 480	199) 423	210) 463	199) 427
31) 430	162) 463	30) 430	163) 464

+) a könyv 20 évvel közzétett gőzök - ből van a jelenlegi.

Operáthas $\frac{\partial u}{\partial x} = 0$ $\frac{\partial u}{\partial y} = 0$

Stámitin IV tábléban, $(\frac{\partial^2 u}{\partial x^2} - \frac{\partial^2 u}{\partial x \partial y})$ és $\frac{\partial^2 u}{\partial y^2}$ értékei III tábléban.

	$\frac{\partial^2 u}{\partial x^2}$	$\frac{\partial^2 u}{\partial y^2}$	$\frac{\partial^2 u}{\partial x \partial y}$	$(10^2 \frac{\partial^2 u}{\partial x^2})_{Körp}$	$(10^2 \frac{\partial^2 u}{\partial y^2})_{Körp}$	$(10^2 \frac{\partial^2 u}{\partial x \partial y})_{Körp}$	$(\frac{\partial^2 u}{\partial x^2})_{Körp}$	$(\frac{\partial^2 u}{\partial y^2})_{Körp}$	D)
I	$-\frac{c}{2} - 60,34$	$-\frac{c}{2} + 60,34$	+12,56				$-100,205 - c$	$-59,145 + \frac{3}{4}c$	
II	$-\frac{c}{2} - 39,07$	$-\frac{c}{2} + 43,55$	+16,23				$-94,925 - c$	$-8,675 + \frac{1}{4}c$	
III	$-\frac{c}{2} - 34,40$	$-\frac{c}{2} + 36,00$	+4,24				$-83,645 - c$	$+41,795 - \frac{1}{4}c$	
IV	$-\frac{c}{2} - 36,70$	$-\frac{c}{2} + 54,20$	-15,47				$-75,365 - c$	$+92,265 - \frac{3}{4}c$	
V	$-\frac{c}{2} - 31,38$	$-\frac{c}{2} + 47,12$	+5,04				$-56,315 - \frac{1}{2}c$	$-67,425 + \frac{3}{4}c$	
VI	$-\frac{c}{2} - 28,80$	$-\frac{c}{2} + 43,98$	+9,58				$-48,035 - \frac{1}{2}c$	$-16,955 + \frac{1}{4}c$	
VII	$-\frac{c}{2} - 31,25$	$-\frac{c}{2} + 45,07$	+4,90				$-39,755 - \frac{1}{2}c$	$+33,515 - \frac{1}{4}c$	
VIII	$-\frac{c}{2} - 34,73$	$-\frac{c}{2} + 63,39$	-2,39				$-31,475 - \frac{1}{2}c$	$+83,985 - \frac{3}{4}c$	
IX	$-\frac{c}{2} - 27,53$	$-\frac{c}{2} + 40,31$	+9,34				-12,425	$-75,705 + \frac{3}{4}c$	
X	$-\frac{c}{2} - 26,59$	$-\frac{c}{2} + 44,39$	+9,68				-4,145	$-25,235 + \frac{1}{4}c$	
XI	$-\frac{c}{2} - 28,71$	$-\frac{c}{2} + 51,27$	+8,67				+4,145	$+25,235 - \frac{1}{4}c$	
XII	$-\frac{c}{2} - 36,43$	$-\frac{c}{2} + 66,51$	+5,51				+12,425	$+75,705 - \frac{3}{4}c$	
XIII	$-\frac{c}{2} - 47,57$	$-\frac{c}{2} + 48,59$	+10,91				$+31,475 + \frac{1}{2}c$	$-83,985 + \frac{3}{4}c$	
XIV	$-\frac{c}{2} - 42,36$	$-\frac{c}{2} + 41,44$	+8,72				$+39,755 + \frac{1}{2}c$	$-33,495 + \frac{1}{4}c$	
XV	$-\frac{c}{2} - 42,63$	$-\frac{c}{2} + 49,89$	+13,17				$+48,035 + \frac{1}{2}c$	$+16,955 - \frac{1}{4}c$	
XVI	$-\frac{c}{2} - 52,58$	$-\frac{c}{2} + 69,18$	+15,08				$+56,315 + \frac{1}{2}c$	$+67,425 - \frac{3}{4}c$	
XVII	$-\frac{c}{2} - 80,67$	$-\frac{c}{2} + 59,75$	-2,25				$+75,265 + c$	$-92,265 + \frac{3}{4}c$	
XVIII	$-\frac{c}{2} - 56,76$	$-\frac{c}{2} + 33,36$	+2,00				$+83,645 + c$	$-41,795 + \frac{1}{4}c$	
XIX	$-\frac{c}{2} - 60,57$	$-\frac{c}{2} + 40,31$	+22,80				$+94,925 + c$	$+8,675 - \frac{1}{4}c$	
XX	$-\frac{c}{2} - 78,73$	$-\frac{c}{2} + 70,65$	+26,67				$+100,200 + c$	$+59,145 - \frac{3}{4}c$	
	-10c - 877,80	-10c + 1009,30	+165,59						

$$(10^2 \frac{\partial^2 u}{\partial x^2})_{Körp} = (10^2 \frac{\partial^2 u}{\partial x^2} + 10^2 \frac{\partial^2 u}{\partial y^2}) = c - 6,575 = c_0$$

$$c = c_0 + 6,575$$

$$(10^2 \frac{\partial^2 u}{\partial x^2})_{Körp} = -43,89 - \frac{c}{2}$$

$$(10^2 \frac{\partial^2 u}{\partial y^2})_{Körp} = +50,465 - \frac{c}{2}$$

$$(10^2 \frac{\partial^2 u}{\partial x \partial y})_{Körp} = +8,28$$

Függvények és deriváltak IV táblája

$\frac{\partial u}{\partial x}$

7, 8, 9, 12, 13, 14
11, 15, 19, 22, 23, 24
a függvények és deriváltak
a táblákban a $\frac{\partial u}{\partial x}$
= $(x^2 - 1) - 2x$ formában

$10^5 \frac{\partial u}{\partial x}$

$10^7 \frac{\partial u}{\partial x}$

$-\frac{1}{2} \frac{\partial u}{\partial x} - \frac{1}{2} ()$ $-\frac{1}{2} \frac{\partial u}{\partial x} + \frac{1}{2} ()$

1	$C - 6,49$	$-\frac{C}{2} - 87,66$	$-\frac{C}{2} + 94,16$
2	$C + 8,62$	$-\frac{C}{2} - 59,54$	$-\frac{C}{2} + 50,92$
3	$C + 7,73$	$-\frac{C}{2} - 35,85$	$-\frac{C}{2} + 28,11$
4	$C - 0,86$	$-\frac{C}{2} - 31,80$	$-\frac{C}{2} + 32,66$
5	$C + 19,61$	$-\frac{C}{2} - 59,06$	$-\frac{C}{2} + 39,44$
6	$C - 14,91$	$-\frac{C}{2} - 45,41$	$-\frac{C}{2} + 60,33$
7	$C - 8,85$	$-\frac{C}{2} - 37,89$	$-\frac{C}{2} + 46,75$
8	$C - 8,77$	$-\frac{C}{2} - 31,33$	$-\frac{C}{2} + 40,11$
9	$C - 15,39$	$-\frac{C}{2} - 33,16$	$-\frac{C}{2} + 48,56$
10	$C - 26,45$	$-\frac{C}{2} - 46,24$	$-\frac{C}{2} + 72,70$
11	$C - 17,11$	$-\frac{C}{2} - 20,37$	$-\frac{C}{2} + 37,49$
12	$C - 15,37$	$-\frac{C}{2} - 25,17$	$-\frac{C}{2} + 40,55$
13	$C - 17,33$	$-\frac{C}{2} - 25,99$	$-\frac{C}{2} + 43,33$
14	$C - 23,77$	$-\frac{C}{2} - 39,51$	$-\frac{C}{2} + 53,29$
15	$C - 34,22$	$-\frac{C}{2} - 37,42$	$-\frac{C}{2} + 71,64$
16	$C - 9,17$	$-\frac{C}{2} - 31,92$	$-\frac{C}{2} + 41,10$
17	$C - 7,67$	$-\frac{C}{2} - 33,44$	$-\frac{C}{2} + 41,12$
18	$C - 11,67$	$-\frac{C}{2} - 31,34$	$-\frac{C}{2} + 43,02$
19	$C - 19,12$	$-\frac{C}{2} - 37,14$	$-\frac{C}{2} + 56,26$
20	$C - 33,08$	$-\frac{C}{2} - 46,71$	$-\frac{C}{2} + 79,79$
21	$C - 0,72$	$-\frac{C}{2} - 68,42$	$-\frac{C}{2} + 69,14$
22	$C + 11,05$	$-\frac{C}{2} - 55,26$	$-\frac{C}{2} + 44,20$
23	$C + 9,32$	$-\frac{C}{2} - 48,08$	$-\frac{C}{2} + 38,76$
24	$C + 1,12$	$-\frac{C}{2} - 58,29$	$-\frac{C}{2} + 57,17$
25	$C - 11,88$	$-\frac{C}{2} - 69,88$	$-\frac{C}{2} + 81,76$
26	$C - 3,81$	$-\frac{C}{2} - 104,27$	$-\frac{C}{2} + 108,09$
27	$C + 32,37$	$-\frac{C}{2} - 72,32$	$-\frac{C}{2} + 39,96$
28	$C + 25,97$	$-\frac{C}{2} - 43,94$	$-\frac{C}{2} + 17,96$
29	$C + 32,63$	$-\frac{C}{2} - 85,98$	$-\frac{C}{2} + 53,34$
30	$C - 5,00$	$-\frac{C}{2} - 93,05$	$-\frac{C}{2} + 98,05$

MAGYAR
TUDOMÁNYOS AKADÉMIA
KÖNYVTÁRA

II - I
III - II
IV - III
VIII - VII
XII - XI
XVI - XV
XIV - XIII
XVII - XVI
XIII - XII
IX - VIII
V - IV
I - X
X - XI
VI - V
II - I
XI - X
VII - VI
VIII - VII
X - I
XI - X
XII - XI

10⁹ $\frac{\partial^4}{\partial z^4}$ kiszámítás III tábla első kértel.

III táblány.

	$()' - ()$	P	$\left(\frac{\partial^4}{\partial z^4}\right)' - \left(\frac{\partial^4}{\partial z^4}\right)$ = ()' - () - 2P	$\left(\frac{\partial^4}{\partial z^4}\right)$	$\frac{\partial^4}{\partial z^4}$	
II - I	+38,05	+21,26	-4,47	I	0	C
III - II	+12,23	+4,68	+2,87	II	C - 4,47	C - 4,47
IV - III	-20,51	-2,31	-15,89	III	C - 1,60	C - 1,60
V - IV	+7,22	+9,19	-11,16	IV	C - 17,49	C - 17,49
VI - V	+4,82	+3,12	-1,42	V	C - 28,65	C - 28,65
VII - VI	+18,81	+2,67	+13,47	VI	C - 29,07	C - 30,07
VIII - VII	+29,24	+9,95	+9,34	VII	C - 16,60	C - 16,60
IX - VIII	+8,71	+0,27	+8,17	VIII	C - 7,43	C - 7,26
X - IX	-12,35	-5,21	-1,93	IX	C - 0,26	C + 0,91
XI - X	-28,31	-8,28	-11,75	X	C - 2,19	C - 1,02
XII - XI	+10,65	+6,81	-2,97	XI	C - 13,94	C - 12,77
I - XII	+42,18	+13,22	+15,74	XII	C -	C - 15,74

+ 49,59
- 49,59
I
csatlakozás !!
C

	$()' - ()$	P	$()' - () - 2P$	$()' - () - 2P$	kiegészítő			
X - XIV	-12,82	+2,60	-18,02	XIV	C + 0,91	-18,92	XIV	C + 0,91
VI - X	+1,79	+0,22	+1,35	X	C - 17,11	+0,45	X	C - 18,01
II - VI	+9,85	-2,09	+14,03	VI	C - 15,76	+13,13	VI	C - 17,56
			-2,64	II	C - 1,73	-5,24	II	C - 4,42
		Direct	-5,28					

	$()' - ()$	P	$()' - () - 2P$	kiegészítő				
XI - XV	-12,54	-0,11	-12,32	XV	C - 7,26	-14,37	XV	C - 7,26
VIII - XI	-3,66	-6,74	+9,82	XI	C - 19,58	+7,77	XI	C - 21,63
IV - VIII	-5,92	-10,11	+14,30	VIII	C - 9,76	+12,25	VIII	C - 13,86
		Direct	+11,80	III	C + 4,54	+5,65	III	C - 1,61
			+5,66					

	$()' - ()$	P	$()' - () - 2P$	kiegészítő				
VI - V	+5,72	+1,49	+2,74	V	C - 15,74	+3,30	V	C - 15,74
VII - VI	-3,54	-0,82	-1,90	VI	C - 13,00	-1,34	VI	C - 12,44
VIII - VII	-21,81	-3,19	-15,43	VII	C - 14,90	-14,87	VII	C - 13,78
		Direct	-14,59	VIII	C - 30,33	-12,91	VIII	C - 28,65
			-12,91					
X - IX	-3,14	+0,65	-4,44	IX	C - 12,77	-4,80	IX	C - 12,77
XI - X	-8,99	-1,73	-5,53	X	C - 17,21	-5,89	X	C - 17,57
XII - XI	-22,97	-8,36	+6,25	XI	C - 22,74	-6,61	XI	C - 23,46
			-16,22	XII	C - 28,99	17,30	XII	C - 30,07
		Direct	17,30					

~~17,56 - 12,77~~
VII = $-\frac{17,56 + 12,77}{2} = -15,17$
VIII = $-\frac{13,86 + 13,78}{2} = -13,82$
X = $-\frac{18,01 + 17,07}{2} = -17,79$
XI = $-\frac{22,46 + 21,60}{2} = -22,55$

	(I' - C)	P	(I' - C) ^{-2P}		
XVII - XIII	+44,26	+10,16	+21,94	XVII	C + 20,92
XVIII - XIV	+6,32	-8,08	+22,48	XVIII	C + 23,36
XIX - XV	+8,37	+9,57	+27,51	XIX	C + 20,25
XX - XVI	+27,63	+1,48	+24,67	XX	C + 8,07

Enn vieteleu normalat ne' csak a
normalis alakjara akarjuk korni.

E vieteleu b'v'ezijuk a q mennyis'egel ar

$$q = e^{\frac{\omega' \pi i}{\omega}}$$

egyenes alapjan. E vieteleu sinu x-t
m'ndenek st'oll a kovetkezo alakban irjuk

$$\sin \omega x = \frac{2\omega}{\pi} \sin \frac{\pi x}{2\omega} \prod_{v=1}^{\infty} \frac{\sin \frac{v\omega' \pi}{\omega} - \sin^2 \frac{\pi x}{2\omega}}{\sin \frac{2(v-1)\omega' \pi}{2\omega} - \sin^2 \frac{\pi x}{2\omega}}$$

Ha a vieteleu normalban a trigonometri-
kus fuigg'yek helyetbe exponenses
fuigg'yeket v'ezijuk be, akkor
az a q mennyis'eggel egy ismer'os
fej'eketo ki: k'ar'at tessz'uk, akkor

$$\sin \frac{v\omega' \pi}{\omega} = \frac{e^{\frac{v\omega' \pi i}{\omega}} - e^{-\frac{v\omega' \pi i}{\omega}}}{2i} = \frac{q^v - q^{-v}}{2i}$$

$$i \sin^2 \frac{v\omega' \pi}{\omega} = \frac{q^{2v} + q^{-2v} - 2}{-4}$$

tov'abb' a

~~$$\sin \frac{\pi x}{2\omega} = \frac{e^{\frac{\pi x i}{2\omega}} - e^{-\frac{\pi x i}{2\omega}}}{2i}$$~~

i k'ar'uto modon

$$\sin^2 \frac{(2v-1)\omega' \pi}{2\omega} = \frac{q^{2v-1} + q^{-2v+1} - 2}{-4}$$

Tov'abb' ha $\sin \frac{\pi x}{2\omega}$ helyetbe $\cos \frac{\pi x}{\omega}$ -t v'ez'e-
l'unk be, az ar

$$\sin^2 \frac{\pi x}{2\omega} = \frac{1 - \cos \frac{\pi x}{\omega}}{2}$$

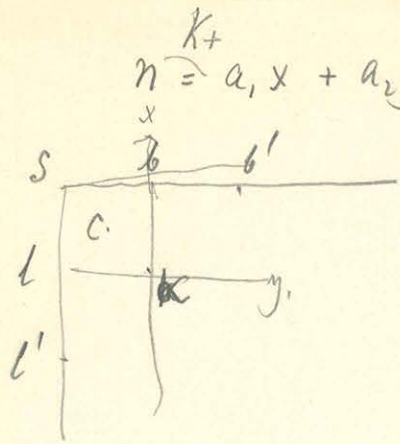
akkor

$$\begin{aligned} \sin^2 \frac{v\omega' \pi}{\omega} - \sin^2 \frac{\pi x}{2\omega} &= \frac{q^{2v} + q^{-2v} - 2 + 2 - 2 \cos \frac{\pi x}{\omega}}{-4} \\ &= \frac{q^{-2v} - 2 \cos \frac{\pi x}{\omega} + q^{2v}}{-4} \end{aligned}$$

i k'ar'uto modon

$$\sin \frac{2(2v-1)\omega' \pi}{2\omega} - \sin^2 \frac{\pi x}{2\omega} = \dots$$

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$$n = \frac{K}{2} = a_1 x + a_2 y + a_{11} x^2 + a_{22} y^2 + a_{12} xy$$

$$C = \frac{1}{2}$$

$$L' = K - a_1 - a_2 + a_{11} + a_{22} + a_{12}$$

$$L = K - a_2 + a_{22}$$

$$S = K + a_1 - a_2 + a_{11} + a_{22} - a_{12}$$

$$b = K + a_1 + a_{11}$$

$$b' = K + a_1 + a_2 + a_{11} + a_{22} + a_{12}$$

$$x = \frac{1}{2}, y = -\frac{1}{2}$$

$$C = \frac{a_1}{2} - \frac{a_2}{2} + \frac{a_{11}}{4} + \frac{a_{22}}{4} - \frac{a_{12}}{4}$$

$$b = K + a_1 + \frac{L'+S}{2} - L$$

$$a_1 = b - K + L + \frac{L'+S}{2}$$

~~sum~~ $\sum = K$

$$b = K + a_1 + a_{11}$$

$$L' - L = -a_1 + a_{11} + a_{12}$$

$$b + (L' - L) = K + 2a_{11} + a_{12}$$

$$K - a_2 + a_{11} + a_{22} - L = a_{11}$$

~~$$b = K + a_1$$~~

$$b + (L' - L) - K - (L + b) + K + S = 2a_{11}$$

$$L' + S - 2L = 2a_{11}$$

$$\begin{aligned} & -K - a_1 + a_2 - a_{11} - a_{22} \\ & + K + a_1 + a_{11} + a_{12} \end{aligned}$$

$$L' + b' = 2K + 2a_{11} + 2a_{22} + 2a_{12}$$

$$\begin{aligned} & K + a_1 - a_2 + a_{11} + a_{12} \\ & -K + a_2 - a_{11} - a_{12} \end{aligned}$$

$$S - (L + b) = -K - a_{12}$$

$$L' - L =$$

$$K + a_1 + a_{11} + a_{22} - b = a_{22}$$

$$a_{12} = \frac{(L+b) - K - S}{2}$$

$$a_{11} = \frac{L'+S}{2} - K$$

$$a_{22} = \frac{b'+S}{2} - b$$

$$a_1 = (b-L) - K - \frac{L'+S}{2}$$

$$a_2 = \frac{K - (L+b) + (b'+S)}{2}$$

three

$$b' - b = a_2 + a_{22} + a_{12}$$

$$L = K - a_2 + a_{22}$$

$$(b' - b) + K = K + 2a_{22} + (L+b) - K - S$$

$$(b' + S) - 2b = 2a_{12}$$

$$a_2 = (K - L) + a_{22}$$

$$\begin{aligned} a_2 &= K - L + a_{22} \\ &= K - L - b + \frac{b'+S}{2} \end{aligned}$$

$$b + (L' - L) = K + 2a_{11} + a_{12}$$

$$K + (L' - L) - K - (L + b) + K + S = 2a_{11}$$

$$L' - 2L + S = 2a_{11}$$

202,77
79,26
123,51

269,91

~~a₁~~ b

$$a_1 = b - K - a_{11}$$

~~$$b = K + a_1$$~~

159,96
238,82
119,41

$$a_1 = b - K + L - \frac{L'+S}{2}$$

$$L' = 54,27$$

$$a_{12} = 202,77 - 249,94 = -47,17$$

$$L = 99,23$$

$$a_{11} = \frac{112,46}{2} - 99,23 = +13,23$$

$$S = 170,68$$

$$a_{22} = 119,41 - 103,54 = +15,87$$

$$b = 102,54$$

$$a_1 = +123,51 - \frac{124,6}{2} = -10,45$$

$$b' = 58,14$$

$$a_2 = -123,51 + 119,41 = -9,10$$

$$K = 79,26$$

$$452,71 \quad 113,18$$

$$\begin{aligned} & +2,05 \quad -8,23 \\ & +16,65 \quad +11,99 \\ & +18,70 \quad -19,02 \\ & \hline & C = -8,23 + 2,05 + \frac{1}{4} 66,60 - \frac{1}{4} 47,17 \\ & 79,26 \quad C = 79,26 + 5,53 + 4,55 + \frac{1}{4} 29,10 + \frac{1}{4} 47,17 \\ & + 78,94 \\ & \hline & -51,172 \quad 79,26 \quad 5,53 \quad 4,55 \\ & + 15,660 \quad 4,88 \quad 7,28 \\ & \hline & 488 \quad 11,79 \\ & \hline & 108,41 \end{aligned}$$

$$\begin{array}{r} 18,13 \\ 147 \\ \hline 16,69 \\ 2801 \\ \hline 2132 \end{array}$$

$$\begin{array}{r} +11,37 \\ 364 \\ \hline +15104 \end{array}$$

$$\begin{array}{r} 20174 \\ 872 \\ \hline 29146 \\ 33122 \\ \hline 3176 \end{array}$$

$$\begin{array}{r} 19,50 \\ 4372 \\ \hline 3322 \end{array}$$

$$\begin{array}{r} 18,43 \\ 872 \\ \hline 27115 \\ 18196 \\ \hline 1169 \end{array}$$

$$\begin{array}{r} 14,94 \\ 1718 \\ \hline 3272 \end{array}$$

$$+23,38$$

$$- \left(\frac{1}{2} \cdot \frac{20+17}{20} + \frac{1}{2} \frac{20+15}{40} + \frac{1}{2} \frac{15+4}{40} + \frac{1}{2} \frac{4+1}{4} + 0 \right) + \frac{1}{2} \frac{2+14}{40}$$

$$- \frac{37}{80} - \frac{25}{80} - \frac{19}{80} - \frac{5}{80} + \frac{16}{80}$$

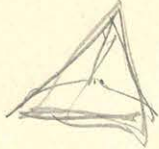
$$\frac{80}{80} \cdot 4 = 20$$

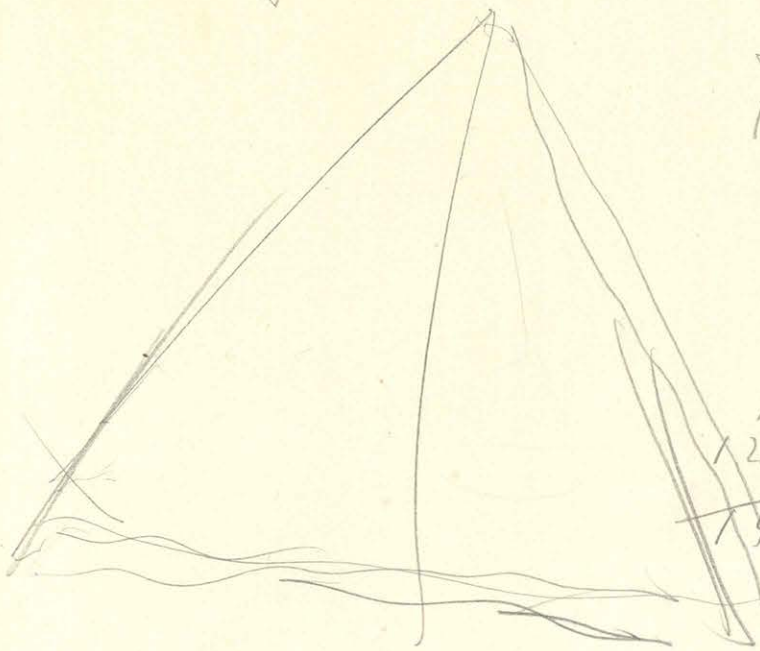
-40

$$\frac{22+8,4}{4} + \frac{8,4+4}{4} + \frac{4+2}{4} + \frac{6,5}{4} + \frac{2,5}{4}$$

$$\begin{array}{r} 2914 \\ 2014 \\ \hline 4 \overline{) 5918} \\ 198 \end{array} \quad \begin{array}{r} 15 \\ \hline -30 \end{array}$$

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 $\frac{K}{2} = \frac{mkl}{2}$



7.816
602

25,40
56,6
 15258
 15258
 12715
1439,308
 28786,76

641/909 | 1,4181
641
 2680
 2564
 1160
641
 5190
 5128
 620

22625 | 2878676 | 1,27
22625
 61610
 45250
163600

+4,7
 -5,66
 -19,77
 -36,26
 -18,65
 -26,75
 -31,33
 -7,00

+4,7
 +10,25
 +22,75
 +21,00
 +34,00
 +60,88
 +58,67
 +55,52
 +26,75
 -1,66
 -19,77
 -36,26
 -18,65
 -26,75
 -61,26
 -62,93
 -61,45
 -31,33
 -0,26
 -7,00

+4,7
 10,25
 22,75
 21,00
 34,00
 60,88
 58,67
 55,52
 26,75
314,62
 -327,42

+5,71
 +0,45
 +22,23

-10,03

+5,71
 +0,45
 16,47
 19,94
 20,44
 58,67
 27,76
159,89

-20,06
 -18,61
 28,68
 60,58
 30,02
 1,36
 7,15
166,46

-4,70
 -26,75
 -61,26
 -62,93
 -61,45
 -31,33
 -10,25
 -22,75
 -21,00
 +0,26
212,52
 +219,52

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$$a = 14,925 \quad b = 44,80 \quad c = 29,25 \quad l = 12,986$$

$$a^2 = 222,76 \quad b^2 = 2007,04 \quad c^2 = 855,56 \quad l^2 =$$

$$\log a = 1,172914 \quad \log b = 1,651278 \quad \log c = 1,466126$$

$$\log a^2 = 2,347828 \quad \log b^2 = 3,302556 \quad \log c^2 = 2,932252$$

$$a - l = 1,939 \quad a + l = 27,911 \quad \log l^2 = 2,226950$$

$$\log(a - l) = 0,287578 \quad \log(a + l) = 1,445775$$

$$\log(a - l)^2 = 0,575156 \quad \log(a + l)^2 = 2,891550$$

$$(a - l)^2 = 3,75973 \quad (a + l)^2 = 779,022$$

$$s^2 = 2866,26 \quad s'^2 = 3641,62$$

$$\log s^2 = 3,457331 \quad \log s'^2 = 3,561294$$

$$\log s = 1,728666 \quad \log s' = 1,780647$$

$$a = b = 14,925 \quad c = 29,25 \quad l = 12,986$$

$$a = b = 14,925 \quad c = 29,25 \quad l = 12,986$$

$$(a - l)^2 = 3,75973 \quad (a + l)^2 = 779,022 \quad b^2 = 222,76$$

$$(a - l)^2 + b^2 = 226,5797$$

$$(a + l)^2 + b^2 = 1001,782$$

$$s^2 = 1082,0797$$

$$s'^2 = 1857,242$$

$$\begin{array}{r} 11425716 \\ 248140 \\ \hline 11077576 \end{array}$$

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$$\log s = \begin{array}{r} 3,024259 \\ 1,517129 \\ \hline 2,255107 \\ 3,872226 \\ \hline 0,127764 - 4 \end{array}$$

$$\log s' = \begin{array}{r} 3,268891 \\ 1,634445 \\ \hline 3,000772 \\ 4,625217 \\ \hline 0,264783 - 5 \end{array}$$

$$\begin{array}{r} 0,196911 - 4 \\ 1,466126 \\ 1,172914 \\ \hline 0,836951 - 2 \end{array}$$

$$\begin{array}{r} 0,000124204 \\ 0,00022162 \\ \hline 0,000157366 \end{array}$$

$$\begin{array}{r} 0,022450 \\ 1,113475 \\ \hline 0,918915 - 2 \end{array}$$

$$\begin{array}{r} 0,0686992 \\ \hline 0,0686992 \\ \hline 0,0829805 \end{array}$$

$$\begin{array}{r} 0,000124204 \\ 0,00022162 \\ \hline 0,000157366 \end{array}$$

$$\begin{array}{r} 0,022450 \\ 1,113475 \\ \hline 0,918915 - 2 \end{array}$$

$$\begin{array}{r} 0,0686992 \\ \hline 0,0686992 \\ \hline 0,0829805 \end{array}$$

$$\begin{array}{r} 3,75973 \\ 222,76 \\ \hline 226,5197 \\ 191,522 \\ 855,56 \\ \hline 1610,281 \end{array}$$

$$\begin{array}{r} 779,022 \\ 222,76 \\ \hline 1001,782 \\ 855,56 \\ \hline 1857,342 \end{array}$$

$$\begin{array}{r} 226,5797 \\ 855,56 \\ \hline 1082,0797 \end{array}$$

$a = 1,651278$ $b = 1,173914$ $c = 1,466126$ 994838
 $5,23,302556$ $2,347828$ $2,932252$ 11636
 000242
 $\hline 1,006716$

$a^2 = 2007,04$ $b^2 = 222,755$ $c^2 = 855,564$

$by\ g^2 = 3,489205$
 $1,744653$

$1,651278$
 $1,466126$
 $\hline 3,117404$
 $2,918567$
 $\hline 0,198837$

$0,157080$
 $1,6581$
 $\hline 5$
 $0,173666$
 $1,173914$
 $1,744653$
 $\hline 2,918567$

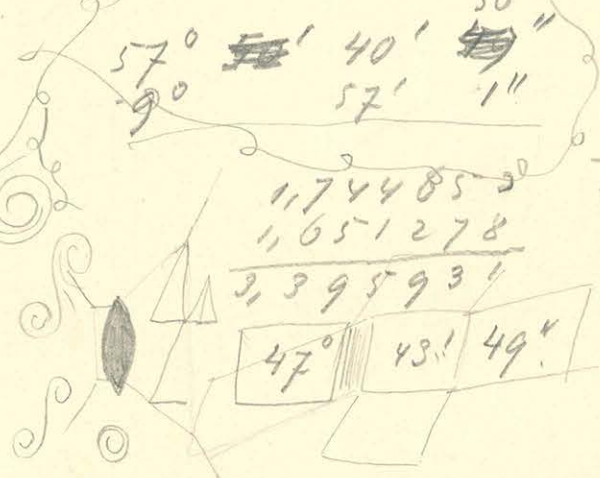
$0,404848$
 $0,0783178$
 $\hline 0,326530$

16003
 1763
 $\hline 1584$

$222,76$
 $855,56$
 $\hline 1078,32$

$0,820305$
 $0,12508$
 $\hline 238$
 $0,833051$

$1,173914$
 $1,466126$
 $\hline 2,640040$
 $3,395931$
 $\hline 0,244109 - 1$



$2,247828$
 $3,489205$
 $\hline 5,837133$

$2,932252$
 $3,302556$
 $\hline 6,234808$
 687279
 1717150
 $\hline 2404429$

$3085,26 + 445,52$
 $687279 + 1717150$
 $\hline 3530,88$
 2404429
 $0,00146850$
 $\hline 0,00111224$
 $0,00035626$

$3,547880$
 $6,381010$
 $\hline 0,166873 - 3$

$2,247828$
 $2,932252$
 $\hline 5,280060$

$0,457767$
 $0,334765$
 $\hline 0,123002$

$3,302556$
 $3,489205$
 $\hline 6,791861$

$3085,26$
 $4014,08$
 $\hline 7099,44$

$6,192400 +$
 190572
 $\hline 6383002$

$3,851226$
 $6,805026$
 $\hline 0,046200 - 3$

$55,546$
 4480
 $\hline 100,346$

$0,551767 - 4$
 $1,651278$
 $1,173914$
 $1,466126$
 $\hline 0,843085$
 $1,744653$
 $\hline 0,098432$

$1,744653$
 $2,001526$
 $\hline 3,746179$

$1,173914$
 $1,466126$
 $\hline 2,640040$
 $3,746179$
 $\hline 0,899861 - 1$

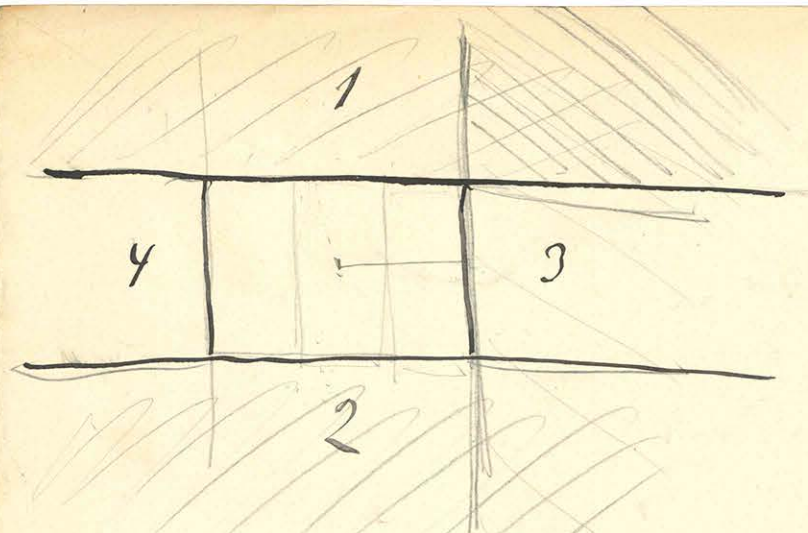
$1,651278$
 $1,466126$
 $\hline 3,117404$
 $3,592662$
 $\hline 0,524741 - 1$
 $3,117404$
 $5,456768$
 $\hline 0,660648 - 1$

$0,2544$
 $0,12544$
 $\hline 1,00352$

$2,640040$
 $3,032748$
 $\hline 0,607292 - 1$

$2007,04$
 $855,56$
 $\hline 2862,60$

09'0
50'8
19 1/2



19328
4998
833
822
165-853
1,000
15,5818

0893057
01203528
1,0006579
615900

01015603
1,204120
1,219723

Integral 1 es 4 re.

a d² marea.

$$= 24 \int \frac{(b^2 - a^2) dm}{(a^2 + b^2 + c^2)^{5/2}}$$

8225020
123321
200521
015520

$$= 4 \int_2 \frac{a^2 dm}{(a^2 + b^2 + c^2)^{5/2}} + 12 \int \frac{b^2 dm}{(a^2 + b^2 + c^2)^{5/2}} + 4 \int_2 \frac{b^2 dm}{(a^2 + b^2 + c^2)^{5/2}} + 12 \int \frac{a^2 dm}{(a^2 + b^2 + c^2)^{5/2}}$$

chun

$$\int_0^a \int_0^b \int_0^c \frac{a^2 da db dc}{(a^2 + b^2 + c^2)^{5/2}} = \int_0^a \int_0^b \frac{a^3}{3(b^2 + c^2)(a^2 + b^2 + c^2)^{3/2}} db dc$$

$a_0 + a_1(b^2 + c^2) +$

$$= \int \frac{db dc}{3(b^2 + c^2)} - \int \frac{a^2 db dc}{3(b^2 + c^2)(a^2 + b^2 + c^2)^{3/2}}$$

$$\int \frac{db dc}{3(b^2 + c^2)} - \int \frac{a^3 db dc}{3(a^2 + c^2)(a^2 + b^2 + c^2)^{3/2}}$$

$$\frac{1}{2} \frac{1}{2} \frac{1}{2} \frac{1}{2} \frac{1}{2}$$

$$\frac{1}{2} \frac{1}{2} \frac{1}{2} \frac{1}{2} \frac{1}{2}$$

$$a^2 \left(\frac{2a^3}{3(b^2 + c^2)^2} + \frac{a}{b^2 + c^2} \right) \frac{1}{(a^2 + b^2 + c^2)^{3/2}}$$

$$\frac{a^2}{3(b^2 + c^2)^2}$$

$$\frac{1}{2} \frac{1}{2} \frac{1}{2} \frac{1}{2} \frac{1}{2}$$

$$\frac{1}{2} \frac{1}{2} \frac{1}{2} \frac{1}{2} \frac{1}{2}$$

2 = 2

8'6279

1/2

lg 1,117475
2,226950

2,226950
1,502618
1,172914
1,466126

2,247828
3,271520
6,719358

lg S. 6,369608

$10^2 = 520,4250$

3,105226
2,922252
6,037488

1090160
520425

$15^2 + 44 - 13^2 = 1,610.585$
lg 0.52() =

6,206826
1,685765
7,892591

6,369608
7,1892591
0,477017 -2
0,778151

lg R = 0,698866 -3
0,726252
0,425718 -2

МАСЯН
КОМПЛЕКС АКАДЕМИИ
КОМПЬЮТЕРОВ

222,76
2352,50
2575,16

3,410804
6,821608
6,206982
0,614625

5,22948
0,09469
5,32417
4,11474
0,0266145

2,347828
3,271520
0,976298 -2

2,226950
1,761823
1,172914
1,466126

3,523646
2,922252
6,455898

3,645184
2,247828
5,993012

lg S. 6,628813
9,285183

$(a+0)^2 = 2,856920$
984038

$(a+1)^2 = 9,840958$

lg R = 6,584440
1,822592
8,407032
0,778151
9,285183

lg A = 0,343630 -3

222,76
4417,57
4640,33
3,666549
7,233098
6,584440

2,347828
3,645184
0,702644 -2

0,748658
5,60607
11,21214
8,21214
0,05042
8,26256

0,917115 -3
0,343630 -3
0,260745 -2

$$4d_2 + 12d_6 = 3,344398$$

$$3,374398$$

$$d_2 + 3d_6 = 0,8360995$$

$$0,8435995$$

~~d₂~~

$$d_2 - d_6 = 0,84752$$

$$0,003745900934$$

$$4d_6 = -0,01142$$

$$d_6 = -0,002854$$

$$4 \overline{) 1192} \quad | \quad 980$$

$$\begin{array}{r} 1,60020 \\ 1,77420 \\ \hline 3,37440 \\ 752 \\ \hline 0,84360 \\ 392 \end{array}$$

$$\begin{array}{r} 0,84752 + d_6 \\ 98 \\ \hline 0,84654 \end{array}$$

$$2d_2 + 4d_4 + 6d_6 = 1,600207$$

$$d_2 + 2d_4 + 3d_6 = 0,800102$$

$$0,84654$$

$$80304$$

$$0,04250$$

$$0,02175$$

$$8 \overline{) 173992} \quad | \quad 2175$$

$$0,84556$$

$$\begin{array}{r} 0,849485 - 1 \\ 927144 \\ \hline 0,776629 \end{array}$$

$$0,597900$$

$$57571$$

$$0,02219$$

$$8d_4 + 16d_8 = 0,177992$$

$$d_4 + 2d_8 = 0,021749$$

$$2d_8 = -0,021749 + 0,02219$$

$$2175$$

$$0,00044$$

$$0,00022$$

$a^2 d$	$-\frac{8}{6} a d^2$	$-6 b d$	$+\frac{64}{6} b d^2$
d^3	$-\frac{512}{6} d d^2$	$-c b d$	$+\frac{218}{6} c d^2$
<hr/>			
1,69008	1,12872	0,08876	0,23669
00176	0,01877	588	0,03561
<hr/>		<hr/>	
1,69484	1,14749	0,09464	27230
9464	27270		
<hr/>	<hr/>		
1,60020	0,87519		

$-a^2 d$	$+\frac{8}{6} a d^2$	$+c b d$	$-\frac{218}{6} c d^2$	$0,03561$
$-6 b d$	$+\frac{512}{6} d d^2$	$+d^3$	$-\frac{512}{6} d d^2$	$0,01877$
				<hr/>
				5438

1,69008	0,00588	109 68
04428	176	
0,08876	<hr/>	
1,78184	241511	685
764	81092	4872
<hr/>	091161	981
1,77420	141160	10682
22	1-22210	35607
0,222	1-048283	
64	1-822428	
64		
<hr/>		
0,71040		
33		

0,71007	52725	2,709270
0,23669	2273	
	52998	
	<hr/>	
0,08616	15715	
28211	241511	
	81092	
	091160	

0,26079	0,415272	0,67988
	1-048283	
	1-822428	
	0,802422	
	<hr/>	
	1-582810	
	362216	
	0,825069	
	<hr/>	
	1-066845	

MAGYAR
TUDOMÁNYOS AKADEMIA
KÖNYVTÁRA

$$S^2 = 9 \quad S = 3$$

$$\frac{1 \cdot 2 \cdot 2}{6(9+16)^3} \left[-3 + 2 \frac{100}{9+16} + \frac{1}{9} \right]$$

$$\frac{2}{9 \cdot 25} \left[+5 + \frac{1}{9} \right] \quad S^{12} = 21$$

$\frac{92}{81 \cdot 25}$	$\frac{2680}{8100}$	1,977904
		0,659201
		1,318602
		<u>535982</u>
		<u>0,782600</u>
$\frac{2,565848}{3,908485}$		
<u>0,657363 - 1</u>		

~~0,452287~~

~~+ 0,0452288~~

~~+ 0,028876~~
~~52820~~

~~0,505482~~

~~535982~~
~~1,318602~~

~~+ 0,128034~~

~~1,190568~~

~~0,4522~~

$$\frac{8}{6(21+64)\sqrt{21}} \left[-3 + 2 \frac{484}{21+64} + \frac{1}{21} \right]$$

$$\frac{4}{255\sqrt{21}}$$

$$\frac{2,985875}{11,329419}$$

$$\log 21 = 1,322219$$

$$0,677781 - 2$$

$$\frac{11,2882}{0,0476}$$

$$\frac{2,406540}{0,661110}$$

$$\frac{0,602060}{2,1067650}$$

$$\frac{0,534410 - 3}{0,926126}$$

$$\frac{1}{3(5)} - \frac{1}{\sqrt{21}(17)}$$

~~0,45~~
~~0,045228~~
~~0,028876~~
~~0,074204~~

$$\frac{1,176091}{0,820909 - 2}$$

$$\frac{0,677780 - 2}{1,220449}$$

$$\frac{0,0666667}{1,28264}$$

$$\frac{0,661110}{1,220449}$$

Annulatio

~~0,15598~~

$$0,782610 \varphi^3$$

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$$\frac{n-1}{2} \sqrt{n^2+1}$$

$$\frac{(\frac{1}{6}-1)\frac{1}{6}}{\sqrt{1+(\frac{1}{6}-1)^2+\frac{1}{6}}} = \frac{\frac{1}{6}-1}{\frac{1}{6}\sqrt{6^2+(6-1)^2+1}}$$

$$\frac{\frac{1}{6}}{(\frac{1}{6}+1)}$$

$$\frac{1}{6\sqrt{}}$$

1,529366
0,743250

2,272616
403055

1,869561
706455

2,576016

1119770
225511

0,894259
1488518

2577026

1,013198
1,168992

2,182190
0,762542

2,944732
1,238277

1,706455

0,584160 0,584760
~~428454~~ 428454
~~325663~~ 225663

1,358277 + 1,238277

1,529366
0,248625
248625

2,026616
~~706455~~

4,221933

2,026616
403055

1,623561

1,529366
743250

2,272616
403055

1,869561
706455

2,576016

MAGYAR
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KÖNYVTÁRA

0809112
954125

21467836
1206624

4799080
8854588

4119124
0809112

4990234
1123087

3,193721
0,761292

2,426429
1,257427

1,168992

1,22624
17231

1,053743
2107486

1,123087

1,22592
0,6200

0,614425

$$\begin{array}{r} 3 \cdot \left(\frac{2}{\sqrt{13}} \right) \\ 13 \end{array} \quad \begin{array}{r} 0,778751 \\ 1,112943 \\ \hline 0,664208 - 1 \\ 615225 \\ \hline 0,048983 - 1 \end{array}$$

$$-0,111940$$

$$\begin{array}{l} 556972 \\ 615225 \end{array}$$

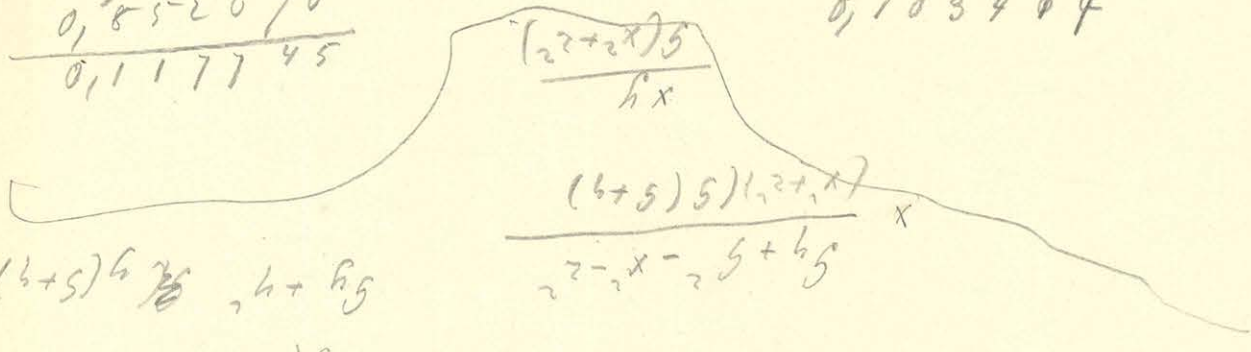
$$\log \frac{\sqrt{8} \cdot (3 + \sqrt{13})}{2 \cdot (3 + \sqrt{17})}$$

$$\begin{array}{l} \sqrt{13} = 3,60555 \\ \sqrt{17} = 4,12311 \end{array}$$

$$\begin{array}{r} 0,451545 \\ 0,819910 \\ \hline 1,271455 \\ 301030 \\ \hline 0,970415 \\ 0,852670 \\ \hline 0,117745 \end{array}$$

$$\begin{array}{r} 0,070942 - 1 \\ 0,637784 - 1 \\ \hline 0,333158 - 1 \end{array}$$

$$\begin{array}{r} 0,215357 \\ 111940 \\ \hline 0,103407 \end{array}$$



$$\frac{(S+h)S}{x} - \frac{x^{2+2}}{x}$$

$$\frac{(x^2+2x+h)(x^2+2x+h) - x^{2+2}}{x}$$

$$\log \sqrt{x^{2+2}} - \log(y + \sqrt{x^2+2x+h}) + C$$

$$\left(\frac{2x}{2x+1} - \frac{2x}{2x+2} \right) \log y + \left(\frac{2x}{2x+1} + \frac{2x}{2x+2} \right) \log \sqrt{x^2+2x+h}$$

$$\left(\frac{2x}{2x+1} - \frac{2x}{2x+2} \right) \log y + \left(\frac{2x}{2x+1} + \frac{2x}{2x+2} \right) \log \sqrt{x^2+2x+h}$$

~~$$\left(\frac{2x}{2x+1} - \frac{2x}{2x+2} \right) \log y + \left(\frac{2x}{2x+1} + \frac{2x}{2x+2} \right) \log \sqrt{x^2+2x+h}$$~~

~~$$\left(\frac{2x}{2x+1} - \frac{2x}{2x+2} \right) \log y + \left(\frac{2x}{2x+1} + \frac{2x}{2x+2} \right) \log \sqrt{x^2+2x+h}$$~~



Nov 25 98

Morgan's long notes

5
1,60555
1,12711

$$\frac{1}{l} \log \left(1 + 2 \frac{a}{a^2+c^2} l \right) \frac{\frac{b}{s} + 1 - \frac{al}{s^2}}{\frac{b}{s} + 1 + \frac{al}{s^2}}$$

$$\frac{b+s - \frac{al}{s}}{b+s + \frac{al}{s}}$$

$$\frac{1}{l} \log \left(1 + 2 \frac{a}{a^2+c^2} l \right) \left(1 - 2 \frac{al}{s(s+b)} \right)$$

$$\frac{1}{l} \log \left(1 + 2 \left(\frac{a}{a^2+c^2} - \frac{a}{s(s+b)} \right) l \right)$$

$$2 \frac{a}{c}$$

$$2a \left(\frac{1}{a^2+c^2} + \frac{1}{s(s+b)} \right)$$

$$\frac{4ba}{b^2+c^2 \sqrt{a^2+b^2+c^2}}$$

$$\frac{s^2+bs - a^2 - c^2}{(a^2+c^2)s(s+b)} = \frac{b(s+b)}{(a^2+c^2)s(s+b)}$$

$$\frac{4ab}{(b^2+c^2)\sqrt{a^2+b^2+c^2}} + \frac{4ab}{(a^2+c^2)\sqrt{a^2+b^2+c^2}}$$

$$\frac{2ab}{(a^2+c^2)s}$$

$$\frac{1}{5} - \frac{1}{15}$$

$$\frac{8}{65}$$

$$\begin{array}{r} 0,477121 \\ 572064 \\ \hline 0,904057 - 1 \\ 902090 \end{array}$$

$$0,904057 - 1$$

$$\begin{array}{r} 0,807147 \\ 1,812912 \\ \hline 0,994234 - 2 \end{array}$$

$$\begin{array}{r} 0,602060 \\ 6,661110 \\ \hline 0,940950 - 1 \end{array}$$

$$\frac{3}{4,5}$$

$$0,0986810$$

$$\begin{array}{r} 0,872870 \\ 666667 \end{array}$$

$$661110$$

$$\frac{1}{5} \left(\frac{4}{\sqrt{21}} + \frac{2}{3} \right)$$

$$1,539537$$

$$\sqrt{21} = \cancel{4,58443} = 4,58258$$

$$- 0,307907$$

$$\log \frac{\sqrt{20}}{\sqrt{8}} \frac{1+\sqrt{3}}{1+\sqrt{21}}$$

$$\begin{array}{r} 0,650515 \\ 602060 \\ \hline 1,252575 \\ 1,198780 \\ \hline 0,054195 \end{array}$$

$$\begin{array}{r} 0,451545 \\ 0,746875 \\ \hline 1,198380 \end{array}$$

$$\begin{array}{r} 0,732959 - 2 \\ 627784 \\ \hline 0,096175 - 1 \\ 307907 \\ 124789 \\ \hline 183118 \end{array}$$

$$\frac{3}{18} \left(\frac{2}{\sqrt{22}} \right)$$

$$\begin{array}{r} 0,477121 \\ 671212 \\ \hline 1,148333 \\ 0,851667-2 \end{array}$$

$$-0,0710669$$

$$\ln \frac{\sqrt{13}}{3} \frac{3 + \sqrt{18}}{3 + \sqrt{22}}$$

$$\begin{array}{l} 671212 \sqrt{18} = 4,24200 \\ 627637 \sqrt{22} = 4,69042 \end{array}$$

$$\begin{array}{r} 0,556972 \\ 0,859918 \\ \hline 1,416890 \\ 477121 \\ \hline 0,939769 \\ 885950 \\ \hline 0,053819 \end{array}$$

$$\begin{array}{r} 0,720926-2 \\ 637784 \\ \hline 0,093152-1 \end{array}$$

$$\begin{array}{r} 0,122923 \\ 71067 \\ \hline 0,052856 \end{array}$$

$$\frac{25}{15,25} \quad 6,25 \quad 15,25$$

$$\frac{3}{15,25} \left(\frac{2}{\sqrt{19,25}} \right)$$

$$\begin{array}{r} 0,778751 \\ 1,182270 \\ \hline 0,594881-1 \\ 0,642216 \\ \hline 0,952665-2 \end{array}$$

$$-0,0896726$$

$$\ln \frac{\sqrt{10,25} \cdot 3 + \sqrt{15,25}}{2,5 \cdot 3 + \sqrt{19,25}}$$

MATYAR
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KÖNYVTÁRA

$$591625 \sqrt{15,25} = 3,90512$$

$$642215 \sqrt{19,25} = 4,38748$$

$$\begin{array}{r} 0,505262 \\ 0,829171 \\ \hline 1,344533 \\ 0,397940 \\ \hline 0,946593 \\ 868496 \\ \hline 0,078097 \end{array}$$

$$\begin{array}{r} 0,179825 \\ 89674 \\ \hline 0,090151 \end{array}$$

$$\begin{array}{r} 1,013198 \\ 1,168992 \\ \hline 2,182190 \\ 0,762542 \\ \hline -2,944732 \end{array}$$

$$-0,806110 \quad \begin{array}{r} 842624-2 \\ 657784 \\ \hline 0,254850-1 \end{array}$$

$$\begin{array}{r} 1,529366 \\ 0,371625 \\ 371625 \\ \hline 2,272616 \\ 0,806110 \\ \hline 1,466506 \end{array}$$

1,26. 106,276

4,9,6276√11,6276.57076 + 16

3,26 . (12. + 22)

28,5104√75,2891
2,26 . 91,2891

1,065490
0,708217
1,773707
592891

1,585578
928655
2,524233
0,512218
0,011015
0,960895
0,050120

48°
17'
56"

1,877209

106929.

4,9,6929√11,6929.5,1529 + 16

3,27 (12 + 22)

38,7716√76,2275
3,27 . 92,2275

1,588515
941285
2,529900
0,514548
0,015352
1,964509
0,50843

1,067815
0,712052
1,779867
60,2275
1,882769
941285

28,7716√76,2524
3,27 . 92,2524

1,588514
941127
2,529642
0,514548
0,015098
1,964978
0,50115

MAGYAR TUDOMÁNYOS AKADÉMIA KÖNYVTÁRA

1,067922
71,2052
1,779974
602524
1,882253
941127

48 17 54.5

92475
15822
76610

827758
4945
264
842967
74

21,10622√1,2516
2,61802
2,61802
10,4026
96098

0,71112
1,07112
0,1342425
0,728694
0,0710
0,21160

475064
1288
922
922
471229
2701019

0,71126
1,359856
1,07112
0,486786
0,584221

1106128
9604096
22422
3,84√5,84244 + 1

105625

225

$$\frac{4.9,5625 - \sqrt{11,5625 - 5,0625 + 16}}{3,25 (1 + 22)}$$

$$\begin{array}{r} 1,062052 \\ 0,704270 \\ \hline 1,767422 \\ 58,5259 \end{array}$$

$$\frac{28,2500 \sqrt{74,5259}}{2,25 \cdot 90,5359}$$

$$\begin{array}{r} 1,582621 \\ 926185 \\ \hline 2,518816 \\ 0,511887 \\ \hline 2,006933 \\ 2,000000 \\ \hline 11956821 \\ \hline 0,050112 \end{array}$$

48°
17'
54

1,872269

$$\begin{array}{r} 837758 \\ 13672 \\ \hline 262 \\ \hline 851692 \end{array} \quad \begin{array}{r} 827758 \\ 4945 \\ \hline 262 \\ \hline 842965 \end{array}$$

497126

$$\begin{array}{r} 8-182818 \\ \hline 994310 \\ 5-182391 \\ \hline 717756 \\ 9-007117 \end{array}$$

0000000

$$\begin{array}{r} 217756 \\ \hline 11049567 \\ \hline 0127579 \end{array}$$

$$\begin{array}{r} 10035 \\ \hline 768 \\ \hline 10801 \end{array}$$

$$\begin{array}{r} 00768 \\ \hline 17355 \\ \hline 0,000018127 \end{array}$$

$$\begin{array}{r} 2870824 \\ 5741768 \\ \hline 02582026 \end{array} \quad \begin{array}{r} 2880282 \\ 5760564 \\ \hline 02094306 \end{array}$$

Die Zahl 4,127579 ist die Wurzel der Gleichung $x^3 - 11,5625x + 16 = 0$.
 Die Zahl 2,006933 ist die Wurzel der Gleichung $x^3 - 74,5259x + 28,25 = 0$.
 Die Zahl 1,872269 ist die Wurzel der Gleichung $x^3 - 11,5625x + 16 = 0$.

$$\frac{2\sqrt{6}}{2.7}$$

$$\frac{2.45}{1735} \cdot 52$$

$$\begin{array}{r} 0,477121 \\ 0,389076 \\ \hline 0,866197 \\ 301020 \\ \hline 0,565167 \\ 845098 \\ \hline 0,720069 -1 \end{array}$$

$$\frac{778151}{\dots}$$

$$27^\circ 41' 40''$$

$$\begin{array}{r} 471229 \\ 11926 \\ 194 \\ \hline 0,483459 \end{array}$$

$$\frac{8\sqrt{41}}{3.42}$$

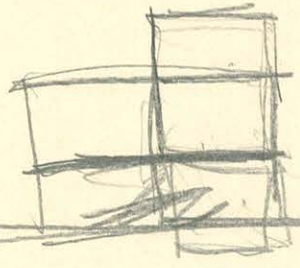
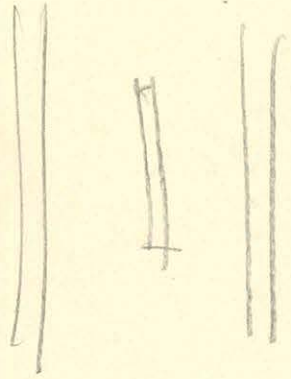
$$\frac{180}{240}$$

$$\frac{350}{6m} = 1,612784$$

$$\begin{array}{r} 0,902090 \\ 806252 \\ \hline 1,709482 \\ 477121 \\ \hline 0,232261 \\ 623249 \\ \hline 0,609112 \end{array}$$

$$22^\circ 7' 27''$$

$$\begin{array}{r} 382972 \\ 2036 \\ 131 \\ \hline 0,86139 \end{array}$$



MÁSYAR
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$$6,25$$

$$\frac{5,25 \sqrt{9,25 \cdot 2,25} + 1}{2,5 (5,25 + 2)}$$

$$24$$

$$\frac{625}{22} = \begin{array}{r} 0,795880 \\ 0,252182 \\ \hline 1,148062 \end{array}$$

$$\frac{5,25 \sqrt{15,0625}}{2,5 \cdot 10,025}$$

$$\frac{40}{1238260}$$

$$\begin{array}{r} 1,177897 \\ 588949 \end{array}$$

$$\begin{array}{r} 0,720159 \\ 588949 \\ \hline 1,309108 \\ 297940 \\ \hline 0,91168 \\ 204798 \\ \hline 0,706370 \end{array}$$

$$26^\circ 57' 27''$$

$$\begin{array}{r} 450786 \\ 167870 \\ \hline 480497 \end{array}$$

$$\frac{9000}{M=54000} = \begin{array}{r} 0,860228 \\ 352182 \\ \hline 1,212521 \end{array}$$

$$\frac{5,25 \sqrt{17,2125}}{2,5 \sqrt{18,2125}}$$

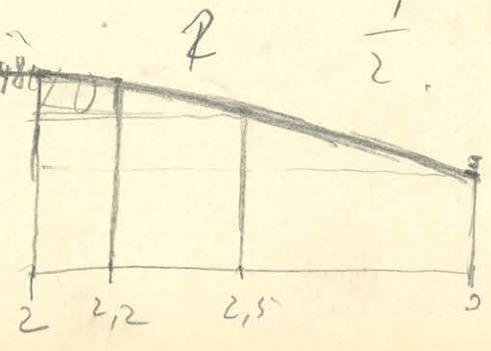
$$25^\circ 20' 29''$$

$$\frac{47}{2}$$

$$\begin{array}{r} 40000 \\ 13500 \\ \hline 27000 \\ 64000 \end{array}$$

$$\begin{array}{r} 0,720159 \\ 619180 \\ \hline 1,339339 \\ 397940 \\ \hline 0,941399 \\ 1,262748 \\ \hline 0,678651 \end{array}$$

$$\begin{array}{r} 426222 \\ 872728 \\ \hline 140 \\ 445199 \end{array}$$



$$\begin{array}{r} 1,425969 \\ 2,079181 \\ \hline 3,505150 \end{array}$$

$$\begin{array}{r} 3200,000 \\ 2995,2 \\ \hline 204,8 \\ 0,749427 - 2 \\ \hline 2,311320 \\ \hline 0,428097 - 4 \end{array}$$

$$\begin{array}{r} 0,00187200 \\ 13711 \\ \hline 0,0004419 \end{array}$$

$$\begin{array}{r} 846128 \\ 147 \\ 137 \\ \hline 0,846412 \end{array}$$

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$$\begin{array}{r} 1425969 \\ 638609 \\ \hline 0,064878 - 1 \end{array}$$

$$\begin{array}{r} 1,16112 \\ 1,10496 \\ \hline 0,05616 \\ \hline 204,8 \end{array}$$

$$d_{10} = 0,00027428$$

$$d_6 = 0,0004419$$

$$-0,846412$$

$$d_2 = 0,846412$$

$$\begin{array}{r} -842599 \\ 1326 \\ 1371 \\ \hline 0,846296 \end{array}$$

$$d_6 = 0,00046142$$

$$d_{10} = 0,0002703$$

$$0,846412$$

$$(24.124,8 - 120.26,606) d_6 = 124,8 \cdot 0,045122 - 120 \cdot 0,046040$$

~~0,846412~~

$$\begin{array}{r} 2,096215 \\ 1,280211 \\ \hline 3,476426 \\ 2995,20 \end{array} \quad \begin{array}{r} 2,079181 \\ 1,425969 \\ \hline 3,505150 \\ 3200,00 \end{array}$$

$$\begin{array}{r} 2,096215 \\ 0,638609 - 2 \\ \hline 0,739924 \\ 0,593030 \end{array}$$

$$\begin{array}{r} 2,079181 \\ 0,662125 - 2 \\ \hline 0,742316 \\ 0,552480 \\ 43030 \\ \hline 0,09450 \\ \hline 204,8 \end{array}$$

$$\begin{array}{r} 0,001872000 \\ 4614 \\ \hline 0,0013516 \\ 0,0002703 \end{array}$$

$$\begin{array}{r} 0,846128 \\ 135 \\ 50 \\ \hline 0,846313 \end{array}$$

$$\begin{array}{r} 5,52480 \\ 5,43020 \\ \hline 0,09450 \end{array}$$

$$\begin{array}{r} 847599 \\ 1284 \\ 1250 \\ \hline 846133 \end{array}$$

$$\begin{array}{r} 0,975422 - 2 \\ 2,211330 \\ \hline 0,664102 - 4 \\ 46142 \end{array}$$

16666667
 218
 1450,

96
 192
 48
 9992

64
 52
 128
 220
 3328
 1109,33 d6

4270 64 $d_6^+ = 0,000439445$
 640
 4224,24 $d_2 = -0,896328$
 $d_{10} = +0,000270$

4,716007
 1,909767
 3,625764
 4224,29

-1450,67
 110477
 341,34

-241,244 = 0,45

0,846128
 0,000445
 0,846274
 1,846328
 -0,000054
 0,000270

0,176091 - 1
 2,523187
 0,642904 - 4
 3,161564
 0,804573 - 1

0,6276
 4224,24
 4224,88
 0,625874
 0,698275
 0,927539 - 1

$d_2 + 3d_6 + 5d_{10} = 0,8435995$

0,001018
 0,001350
 0,002668

846228
 2668
 0,843660

4398
 2,0001465

$A_2 - A_6 + A_{10}$

846228
 477
 0,846167
 270
 0,846497
 84752

2,123568
 21644
 2,125212

0,282109
 2,256872
 1,21644
 2,255228
 8475
 0,8490
 8464
 2,125228
 0,0016440

1465
 216
 8790
 1465
 2930
 316440

0,001644
 0,0000
 0,001644

$$+24 \alpha_6 + 120 \alpha_{10} = 0,043512$$

$$26,6666 \alpha_6 + 124,8 \alpha_{10} = 0,046040$$

csak

$$(24 \cdot 124,8 - 120 \cdot 26,6666) \alpha_{10} = 24 \cdot 0,046040 - 26,6666 \cdot 0,043512$$

1,380211	1,420506	0,380211	1,420506
2,096215	2,079181	0,663135 - 2	0,638609 - 2
<u>3,476426</u>	<u>3,499687</u>	<u>0,433464</u>	<u>0,059115 - 1</u>
2995,200	3160,000	0,1104960	0,1145816
	<u>2995,200</u>		<u>1,104960</u>
	164,800		<u>0,040856</u>

$$\alpha_6 + 5 \alpha_{10} = 0,001813000$$

$$\frac{2479}{0,00178821}$$

$$\alpha_{10} = 0,0003$$

$$0,61256 - 3$$

$$2,216957$$

$$\frac{0,394235 - 5}{891299}$$

$$24791 \quad \frac{10,043512}{0,0018130}$$

$$\begin{array}{r} 846268 \\ 573 \\ \hline 0,846941 \\ 0,846693 \end{array}$$

$$\begin{array}{r} 842599 \\ 17212 \\ 1240 \\ \hline 846561 \\ \hline 842599 \end{array}$$

$$\begin{array}{r} 0,001813000 \\ 12395 \\ \hline 0,00168905 \\ 181200 \\ 12395 \\ \hline 573 \end{array}$$

$$8486405$$

$$\begin{array}{r} 0,8435995 \\ 0,0039871 \\ 0001239 \\ \hline 0,8486405 \end{array}$$

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$$\begin{array}{r} 846128 \\ 363 \\ 5 \\ \hline 0,846496 \end{array} \quad \begin{array}{r} 1812 \\ 24 \\ \hline 7252 \\ 2626 \\ \hline 43512 \end{array}$$

$$\begin{array}{r} 18120 \\ 0,00012394 \\ \hline 0,0005736 \end{array}$$

$$\begin{array}{r} 0,846128 \\ 191 \\ 49 \\ \hline 0,846368 \end{array}$$

$$\begin{array}{r} 842600 \\ 1722 \\ 1239 \\ \hline 846561 \end{array}$$

$$\begin{array}{r} 846128 \\ 191 \\ 12 \\ \hline 846331 \end{array}$$

$$\begin{array}{r} 0,846128 \\ 000191 \\ 0000495 \\ \hline 0,846368 \\ 574 \\ \hline 0,846942 \\ 0,846942 \\ \hline 0,845794 \\ 248 \\ \hline 0,846042 \end{array}$$

$$\alpha_{10} = +0,000024791$$

$$0,0005736$$

$$\alpha_6 = +0,00168905$$

$$0,846368$$

$$\alpha_2 = 0,846405$$

$$0,846496$$

2846 956

0'84613
338451
24'50472
27'88922

24'50472
0'12618
3'92550
10'04968

3'17757
3'69454
3'17757

1'84727
0'266530

0'05919
0'024974
362216
0'662758-1
0'460000
0'326972
0'786472

0'904214-1
1'258022
0'156384
1'251072
1'258022
0'852670
0'050422
0'802258

27'88922
6'972308

~~0'84613~~
0'40738
3'968430

1'60948
1'386294
4'60948
2'690020
1'774272
1'871276
846456
295
42
0'000253

3'968430
0'823000
0'525201
0'869448
0'643502
0'460647
0'643502

846956

0'971108-1
0'60892-1
0'406342
0'412054
0'878296

0'646960-1
0'284744-1
0'192639
0'554196
0'746825

0'1229734
362216
0'067373
1'158262
0'765256-1
0'922618

0'800088
6'400704

-x2-27x6-125x10

0'401426
49490
199
0'411515

Axixy + Axixp + ...
- Ax - 1/3 Ax - 1/5 Ax

0'501000
0'661110
0'639920-1
250 24'41"

$$\frac{1}{4} \left\{ \begin{array}{l} 4d_2 + 12d_6 + 20d_{10} = -3,374298 \\ -\frac{8}{3}d_2 - \frac{216}{3}d_6 - \frac{1000}{3}d_{10} = +2,125568 \end{array} \right. \quad \begin{array}{l} 2,284512 \\ 0,846128 \end{array}$$

$$-\frac{1}{8} \left\{ \begin{array}{l} -d_2 - \frac{d_6}{3} - \frac{d_{10}}{5} = 0,846128 \end{array} \right.$$

$$-100d_2 - \frac{100}{3}d_6 - 20d_{10} = 84,6128$$

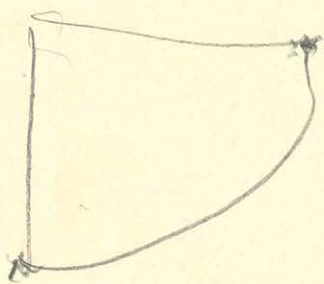
$$-96d_2 - \frac{64}{3}d_6 = 81,2384$$

$$-4992d_2 - 1450,67d_6 = 4224,24$$

$$-8d_2 - 216d_6 - 1000d_{10} = 6,406704$$

$$-5000d_2 + \frac{5000}{3}d_6 - 1000d_{10} = \frac{846,128}{3} = 4230,64$$

$$\left. \begin{array}{l} d_2 + 3d_6 + 5d_{10} = -0,8435995 \\ -d_2 - 27d_6 - 125d_{10} = +0,800088 \\ -d_2 - \frac{d_6}{3} - \frac{d_{10}}{5} = +0,846128 \end{array} \right\}$$



$$4d_2 + 12d_6 + 20d_{10} = 3,374398$$

$$\begin{cases} d_2 + 3d_6 + 5d_{10} = 0,8435995 \\ d_2 - d_6 + d_{10} = 0,847520 \\ d_2 + \frac{1}{3}d_6 + \frac{1}{5}d_{10} = 0,846128 \end{cases}$$

$$-4d_6 - 4d_{10} = 0,003920$$

$$d_{10} = 0,000040$$

$$d_6 + d_{10} = -0,000980$$

$$d_6 = -0,001020$$

$$-\frac{4}{5}d_6 + \frac{4}{5}d_{10} = 0,001392$$

$$d_2 = 0,846460$$

$$-4d_6 + \frac{12}{5}d_{10} = 0,004176$$

$$d_4 = 0,022122$$

$$d_8 = +0,000187$$

$$\left(\frac{12}{5} + 4\right)d_{10} = 0,000256$$

$$\frac{32}{5} 32d_{10} = 0,001280$$

$$d_{10} = 0,000040.$$

$$\begin{array}{r} 0,847520 \\ 1060 \\ \hline 0,846460 \end{array}$$

$$-8d_4 - 16d_8 = 0,170992$$

$$\begin{array}{r} d_4 + 2d_8 = -0,021949 \\ 22122 \\ \hline 0,000373 \end{array}$$

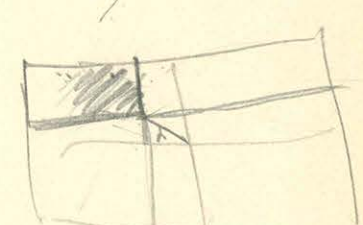
$$\begin{array}{r} 677766 \\ 222505 \\ \hline 655261 \end{array}$$

$$\begin{array}{r} 22122 \\ 282 \\ \hline 22404 \end{array}$$

$$\begin{array}{r} 0,597788 \\ 22122 \\ \hline 0,575666 \end{array}$$

$$\begin{array}{r} 0,846460 \\ 1060 \\ \hline 0,845400 \end{array}$$

$$\begin{array}{r} 1020 \\ 0,279849 \\ 169922 \\ \hline 0,603091 \end{array}$$



$$\frac{1}{(B-Comp)^2 + C} \cdot \frac{1}{(A-Comp)^2 + (B-Comp)^2 + C} \cdot \frac{1}{(A-Comp)^2 + C} \cdot \frac{1}{(A-Comp)^2 + C} \cdot \frac{1}{(A-Comp)^2 + C}$$

$$\begin{array}{r} 0,720766 \\ 0,921104-2 \\ \hline 0,641870-1 \end{array}$$

$$\begin{array}{r} 0,923418-2 \\ 0,139249 \\ \hline 0,072667-1 \end{array}$$

$$\begin{array}{r} 1,138069 \\ 0,572976-2 \\ \hline 0,711045-1 \end{array}$$

$$\begin{array}{r} 0,923418-2 \\ 0,147834 \\ \hline 0,081252-1 \end{array}$$

$$\begin{array}{r} 0,720766 \\ 0,605740-1 \\ \hline 0,326506 \end{array}$$

$$\begin{array}{r} 0,464522 \\ 0,817014-1 \\ \hline 0,281536 \end{array}$$

$$\begin{array}{r} 1,138069 \\ 0,300882-1 \\ \hline 0,438951 \end{array}$$

$$\begin{array}{r} 0,464522 \\ 0,882350-1 \\ \hline 0,346872 \end{array}$$

4,34125

846128

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$$\begin{array}{r} 418 \\ 416 \\ \hline 219 \\ \hline 154 \\ \hline 261 \end{array}$$

$\psi =$

$$V_{45} - V_0 = \int_0^{45} \sin \alpha y \, dy = -\frac{A_2}{2} - \frac{A_4}{2}$$

$$\begin{array}{cccccc} V_{\varphi} - V_0 = & -\frac{1}{2} \cos 2\varphi & -\frac{1}{4} \cos 4\varphi & -\frac{1}{6} \cos 6\varphi & -\frac{1}{8} \cos 8\varphi & -\frac{1}{10} \cos 10\varphi \\ & + \frac{1}{2} A_2 & + \frac{1}{4} A_4 & + \frac{1}{6} A_6 & + \frac{1}{8} A_8 & + \frac{1}{10} A_{10} \\ & + \frac{\alpha_2}{2} & - \frac{\alpha_4}{4} & + \frac{\alpha_6}{6} & - \frac{\alpha_8}{8} & + \frac{\alpha_{10}}{10} \\ & 0 & - \frac{\alpha_4}{4} & 0 & + \frac{\alpha_8}{8} & + 0 \end{array}$$

0,412003

$$a=2 \quad b=2 \quad c=2 \quad d=1$$

$$\sqrt{21} = 4,58258$$

$$\sqrt[2]{2} = a^{\frac{1}{2}} = 0,927204$$

$$\frac{\Pi_2^4 - \Pi_2^2}{2} = \frac{1}{2} \log \frac{17}{5} + \log \frac{2+3}{2+\sqrt{21}}$$

$$\sqrt[4]{2} = a^{\frac{1}{4}} = 1,050601$$

$$\frac{\Pi_2^4 - \Pi_2^2}{2} = \frac{1}{2} \log \frac{20}{8} + \log \frac{1+3}{1+\sqrt{21}}$$

$$\sqrt[4]{1} = a^{\frac{1}{4}} = 0,108681$$

$$= 0,226901$$

$$\sqrt[2]{1} = \frac{1}{2} = 0,21751$$

$$= 0,124817$$

$$\begin{array}{r} 0,602060 \\ 477121 \\ \hline 0,124939 \\ 50^{\circ} 7' 46'' \\ 0,925025 \\ 2026 \\ 222 \\ \hline 0,927204 \end{array}$$

$$\begin{array}{r} 0,902090 \\ 0,661110 \\ \hline 0,241980 \\ 60^{\circ} 11' 42'' \\ 1,047198 \\ 3200 \\ 200 \\ \hline 1,050601 \end{array}$$

$$\begin{array}{r} 0,698970 - 1 \\ 0,661110 \\ \hline 0,037860 - 1 \\ 60^{\circ} 10' 37'' \\ 0,104720 \\ 3782 \\ 179 \\ \hline 0,108681 \end{array}$$

$$\begin{array}{r} 0,698970 - 1 \\ 477121 \\ \hline 0,522879 - 1 \\ 18^{\circ} 26' 6'' \\ 0,314159 \\ 7565 \\ 29 \\ \hline 0,221751 \end{array}$$

$$\begin{array}{r} 1,200449 \\ 698970 \\ \hline 0,531479 \\ 0,265740 \end{array}$$

$$\begin{array}{r} 1,307020 \\ 902090 \\ \hline 0,297940 \\ 0,198970 \end{array}$$

$$\begin{array}{r} -1,977905 \\ -0,642502 \\ \hline 2,621467 \\ 1,021259 \\ \hline 1,600148 \end{array}$$

$$\begin{array}{r} 0,698970 \\ 0,818296 \\ \hline 0,880574 - 1 \\ 265740 \\ \hline 0,146314 \\ 262216 \\ \hline 0,588530 \end{array}$$

$$\begin{array}{r} 0,602060 \\ 0,746825 \\ \hline 0,855225 - 1 \\ 198970 \\ \hline 0,054195 \\ 262216 \\ \hline 0,212979 \end{array}$$

$$\begin{array}{r} 0,404724 \\ 0,226901 \\ 249634 \\ \hline 1,021259 \end{array}$$

$$\begin{array}{r} 0,165286 - 1 \\ 262216 \\ \hline 0,527502 - 1 \end{array}$$

$$\begin{array}{r} 0,702959 - 2 \\ 262216 \\ \hline 0,096275 - 1 \end{array}$$

$$+ 1,190568$$

$$\begin{array}{r} 16 \\ 196 \\ 58 \\ \hline 64 \\ 196 \\ 256 \\ \hline 8 \\ 215 \\ 512 \end{array}$$

$$\begin{array}{r} 266 \\ 996 \\ 216 \end{array}$$

$$\frac{27}{26} - 7$$

$$\sqrt{4-9} = \log$$

0,602060
 477121

 0,124939
 55° 7' 48"

0,925025
 2026
 222

 0,927293

0,522879 - 1
 18° 26' 6"

0,314159
 7563
 29

 0,221751

$d_y = 0,188757$

$d_8 = -0,016028$

0,752604
 128200

 624484

0,698970
 0,249485
 $\sqrt{5} = 2,23607$

0,698970
 0,249485

0,626962
 698970

 0,927993 - 1
 349485

 0,277478
 362216

 0,639694

0,442229 - 1
 262216

 0,805445

0,150515
 0,510018
 602060

 0,907958 - 1
 750515

 0,058473

766955 - 2
 262216

 0,229171 - 1

$S_1^2 = 5$ $S_2^2 = 9$

$d_4 + 8d_8 = \frac{3}{22} \cdot 0,624484$
 $= \frac{1,918557}{22}$
 $= 0,087207$
 128200

 188105

1,557807
 2,289201

 0,274506 - 1
 0,188757

$\frac{1}{2} + \frac{1}{6} = \frac{2}{3}$
 $15/100 / 0,066 \cdot \frac{4}{3} \left[\frac{1}{\sqrt{5}} - \frac{1}{3,5} \right] = 0,507392$

0,447213
 66667

 0,380546
 0,126848

0,282976
 1,505150

 0,777826 - 2

0,795467 - 1
 1,806180

 1,601647
 399620
 3,83712

 26,1249

$\frac{4}{6 \cdot 3(9+16)} \left[-2 + \frac{200}{25} + \frac{1}{9} \right] =$

$\frac{16}{1800} (5,111111)$

0,009545
 2,252182

 0,657362 - 2

8/900/112
 100
 20

4,511111
 450

 2
 225

10,222222
 225

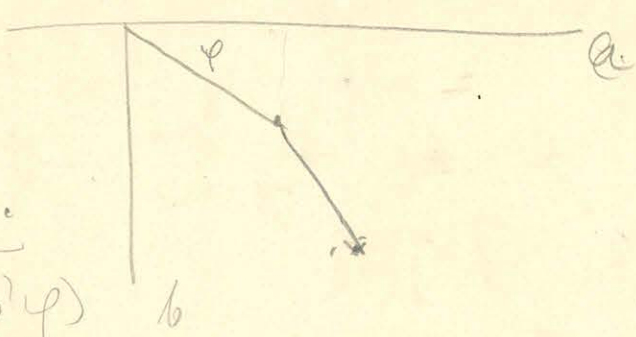
 820910'
 0,502606
 1010-11
 188157

$d_4 + 2d_8 = 0,156101$

$$\frac{2a}{b+l \sin \varphi}$$

$$1 + \frac{a^2 - l^2 \cos^2 \varphi}{(b+l \sin \varphi)^2}$$

$$\frac{2a(b+l \sin \varphi)}{(b+l \sin \varphi)^2 - (a^2 - l^2 \cos^2 \varphi)}$$

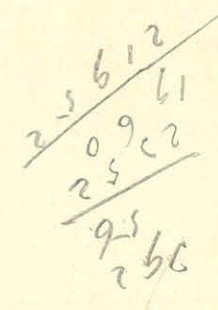


$$\frac{2ab + 2al \sin \varphi}{b^2 + l^2 + a^2 + 2bl \sin \varphi}$$

$$\frac{(b-l \sin \varphi) \cos \varphi}{r^2} - \frac{(a-l \cos \varphi) \sin \varphi}{r^2}$$

$$r^2 = (b-l \sin \varphi)^2 + (a-l \cos \varphi)^2$$

$$a^2 + b^2 + l^2$$



$$4 - 5858156$$

$$19058812$$

$$1 - 9460020$$

MATYAR
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KÖNYVTÁRA

$$2666516 = 0,1 p 89 t -$$

$$2261210 = 0,21952$$

$$2220116$$

$$095578$$

$$1014672$$

$$2291101$$

~~$$2666516 = 0,1 p 89 t -$$~~
~~$$2261210 = 0,21952$$~~
~~$$2220116$$~~

$$256968109108719 = 6,12801608996956$$

$$8 d_2 + 8 d_6 - 2 p 8$$

$$- 8 d_2 - 216 d_6 - 1000 d_{10} = 6,400704$$

$$8 d_2 - 216 d_6 - 1000 d_{10} = 6,400704$$

$$0,847728$$

$$8020000$$

$$0,847728$$

$$0,000980 = p$$

$$4/224 56$$

$$4 d_6 + 4 d_{10} = 4,69112 + 0,00392$$

$$d_2 + d_6 - d_{10} = 0,84752$$

$$d_2 + 3 d_6 + 5 d_{10} = 0,843595$$

$$ad = cT\sqrt{v} = c\sqrt{T-t}$$

$$\frac{T-t}{T}$$

$$a(1+d\sqrt{v}) = n^2 - 1$$

$$\frac{c\sqrt{T} \cdot \sqrt{T-t}}{T}$$

\mathcal{P}

$$T \frac{n^2 - 1}{v}$$

$$\frac{d}{1+d\sqrt{v}} = \frac{c\sqrt{T}}{T}$$

$$\frac{d}{1+d\sqrt{v}}$$

$$\frac{T}{v} n^2 - 1$$

$$n^2 - 1 = a(1+d\sqrt{v})$$

$$T \frac{1}{v} \frac{\partial}{\partial t} (n^2 - 1) + T \frac{n^2 - 1}{v^2} \frac{\partial v}{\partial t}$$

h_2

$$v^2 = \sqrt{\frac{a^2}{b^2}}$$

$$\frac{v^2}{v^2} = \sqrt{\frac{a^2}{b^2}}$$

\mathcal{T}

$$\frac{\frac{\partial}{\partial t} (n^2 - 1)}{n^2 - 1} - \frac{\frac{\partial v}{\partial t}}{v} = c$$

$$\frac{\frac{\partial}{\partial t} (n^2 - 1)}{n^2 - 1} - \frac{\frac{\partial v}{\partial t}}{v} = c$$

$$\frac{\frac{\partial}{\partial t} (n^2 - 1)}{n^2 - 1} = \frac{\frac{\partial v}{\partial t}}{v} + c$$

$$\frac{\partial n^2}{\partial t}$$

$$\frac{\partial n^2}{\partial t} = \frac{a - n^2 \frac{\partial t}{\partial t}}{1 + bt} = \frac{a - n^2}{1 + bt}$$

$$n^2 = \frac{1 + at}{1 + bt}$$

$$v^2 = v_0^2 \left(\frac{1 + \frac{a}{c} p}{1 + \frac{a}{c} p} \right)$$

$$v^2 = \frac{a}{c} a$$

$$v^2 = \frac{a + bt}{c + dt}$$

$$v^2 = \frac{A^2}{B^2}$$

$$v^2 = \frac{A^2}{B^2}$$

$$n^2 = \frac{A^2}{B^2}$$

$$n^2 = \frac{A^2}{B^2}$$

$$n^2 = \frac{A^2}{B^2}$$

$$\frac{A^2}{B^2}$$

$$\frac{A^2}{B^2}$$

$$n^2 = \frac{1 + at}{1 + bt} = \frac{a + bt}{c + dt}$$

$$a + b$$

$$\frac{83000}{8854} = 93.81$$

$$\frac{83000}{8854} = 93.81$$

$$\frac{83000}{8854} = 93.81$$

$$\frac{83000}{8854} = 93.81$$

$$\frac{83000}{8854} = 93.81$$

$$\alpha_2 \frac{1}{\sqrt{2}} + \alpha_4 + \frac{1}{\sqrt{2}} \alpha_6 - \frac{1}{\sqrt{2}} \alpha_{10}$$

$$\frac{1}{1 + \left(\frac{2ab+ax}{h+bx}\right)^2} \frac{ha}{(h+bx)^2}$$

$$\begin{array}{r} -0,846956 \\ \hline 2083 \\ -0,849039 \\ \hline 772 \\ -0,848267 \end{array}$$

$$\begin{array}{r} 0,928555 - 1 \\ \hline 150515 \\ 0,778018 - 1 = 599816 \\ \hline 23610 \\ 0,576206 \\ \hline 5757 \end{array}$$

~~W-logy~~
~~logy.~~

$$\frac{a - l \sin \varphi}{b + l \sin \varphi}$$

$$\frac{b + l \sin \varphi}{b + l \sin \varphi}$$

МАТЕМАТИЧЕСКАЯ АКАДЕМИЯ
УНИВЕРСИТЕТА

$$\frac{2a}{b + l \sin \varphi}$$

$$\frac{ha}{(h+bx)^2}$$

$$\frac{1 - \frac{a^2 - l^2 \sin^2 \varphi}{2a(b + l \sin \varphi)}}{(b + l \sin \varphi)^2 - a^2 + l^2 \sin^2 \varphi} = 2 \frac{hab}{(h+bx)^2}$$

$$\frac{2a(b + l \sin \varphi)}{b^2 - a^2 + l^2 + 2bl \sin \varphi}$$

$$\frac{2l \sin \varphi}{2l \sin \varphi}$$

$$\frac{2ab + 2al \sin \varphi}{b^2 - a^2 + l^2 + 2bl \sin \varphi}$$

$$\frac{2ab + ax}{h + bx}$$

$$\frac{a}{h + bx} - \frac{abx}{(h + bx)^2}$$

$$\frac{ha + abx - abx}{(h + bx)^2}$$

$$\frac{1 + \frac{2ax}{h}}{(h+bx)^2} = 1 - \frac{2a}{h}$$

$$\frac{1}{1 - \frac{2a}{h}}$$

$$\frac{1}{1 - \frac{2a}{h}}$$

✓

$$\frac{1}{1 - \frac{2a}{h}}$$

✓

$$\frac{1}{1 - \frac{2a}{h}}$$

$$\frac{15}{16} q' = -0,000191$$

$$\begin{array}{r} 16 \\ \hline 1146 \\ 191 \\ \hline 16 \overline{) 2056} \quad | \quad 203 \\ 56 \end{array}$$

$$\begin{array}{r} 0,806180 - 1 \\ 0,040841 - 2 \\ \hline 0,147021 - 2 \end{array}$$

$$\begin{array}{r} 60 \\ 0,418540 - 1 \\ 0,007496 - 4 \\ \hline 0,111044 - \\ 0,726036 - 5 \end{array}$$

$$\begin{array}{r} 0,0140288 \\ 0,0000522 \\ \hline 0,014082 \end{array}$$

$$\begin{array}{r} 0,056400 \\ 56228 \\ \hline 72 \end{array}$$

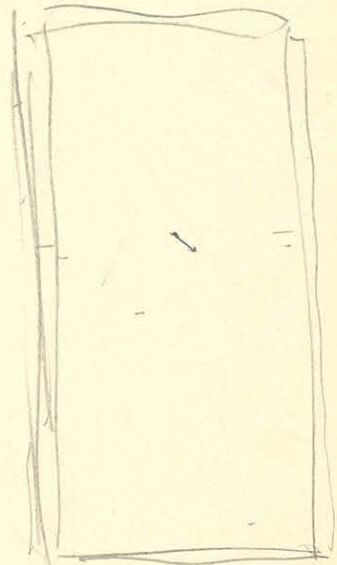
$$\begin{array}{r} 1627924 \\ 72 \\ \hline 1,627996 \end{array}$$

$$\begin{array}{r} 729940 \\ 72 \\ \hline 0,729878 \end{array}$$

$$\begin{array}{r} 518910 \\ 07845 \\ \hline 981629 \end{array}$$

$$\begin{array}{r} 365 \\ \hline 212 \\ 578 \\ \hline 0,527831 - 3 \\ 0,965615 - 4 \\ \hline 0,965615 - 4 \\ \hline 6226 \end{array}$$

$$\begin{array}{r} 4 \\ \hline 4 \\ 57567 \\ 57607 \end{array}$$



$$8002000'0$$

$$\begin{array}{r} 0,761626 - 4 \\ \hline 1 - 0482856 \\ 0,817252 \\ \hline 0,81574 - 4 \end{array}$$

$$9225000'0 +$$

$$\begin{array}{r} \lg 645 \quad 0,806180 - 1 \\ 0,092420 - 2 \\ \hline 0,898610 - 3 \end{array}$$

$$\begin{array}{r} \lg \lambda^4 = 0,612360 - 1 \\ 0,964118 - 4 \\ \hline 0,576478 - 4 \end{array}$$

$$\begin{array}{r} 0,00791790 \\ 0,0003771 \\ \hline 1,0075408 \end{array}$$

$$\begin{array}{r} 0,003262 \\ 0,922661 \\ \hline 0,925923 \end{array}$$

$$\underline{0,842186}$$

$$\begin{array}{r} 0,806180 - 1 \\ 0,229809 - 2 \\ \hline 0,145989 - 2 \end{array}$$

$$\begin{array}{r} 0,612360 - 1 \\ 0,406540 - 4 \\ \hline 0,018900 - 4 \end{array}$$

$$\begin{array}{r} 0,0129955 \\ 0,0001044 \\ \hline 0,0140999 \end{array}$$

$$0,006120$$

$$\frac{30}{8} - 1$$

$$\frac{28}{8} \quad \frac{22}{8}$$

$$0,001496$$

MAGYAR TUDOMÁNYOS AKADÉMIA KÖNYVTÁRA

$$\begin{array}{r} 0,786751 - 3 \\ 0,612360 - 1 \\ \hline 0,399111 - 3 \end{array}$$

$$2,75$$

$$\frac{38}{8} = 4,75$$

$$\begin{array}{r} 0,174922 - 3 \\ 612360 - 1 \\ 806180 - 1 \\ \hline 0,593472 - 4 \end{array}$$

$$\begin{array}{r} 0,602060 - 4 \\ 0,224720 - 1 \\ \hline 0,826780 - 5 \end{array}$$

$$\begin{array}{r} 1,686272 \\ 292 \\ 67 \\ \hline 1,686831 \\ 58907 \\ \hline 1,627924 \end{array}$$

$$\begin{array}{r} 0,056400 \\ 2507 \\ \hline 58907 \end{array}$$

$$\begin{array}{r} 0,9572656 \\ 1,0451071 \\ 0,775704 \\ \hline 2,778077 \\ 1,144100 \\ \hline 1,633977 \end{array}$$

$$\begin{array}{r} 1,686272 \\ 56400 \\ 67 \\ \hline 1,642839 \\ 2899 \\ \hline 1,729940 \end{array}$$

$$\begin{array}{r} 0,429222 \\ 0,450262 - 1 \\ \hline 0,889696 - 1 \end{array}$$

$$\begin{array}{r} 2,778077 \\ 1,144100 \\ \hline 1,633977 \\ 0,564242 \\ 0,331054 \\ 0,248702 \\ \hline 1,144100 \end{array}$$

$$\begin{array}{r} 1,686272 \\ 56400 \\ 67 \\ \hline 1,642839 \\ 2899 \\ \hline 1,729940 \end{array}$$

$$\begin{array}{r} 0,002507 \\ 292 \\ \hline 2899 \end{array}$$

$$\begin{array}{r} 1,642839 \\ 2899 \\ \hline 1,729940 \end{array}$$

$$\begin{array}{r} 0,676694 \\ 0,074845 - 1 \\ \hline 0,751543 \end{array}$$

952
10

$\lambda = 1$

$$\begin{array}{r}
 0,0122717 \\
 9207 \\
 \hline
 0,0114510
 \end{array}$$

$$\begin{array}{r}
 0,005572 \\
 0,922662 \\
 \hline
 0,928234
 \end{array}$$

$$\begin{array}{r}
 0,004945 \\
 0,922661 \\
 \hline
 0,927606 \\
 846460
 \end{array}$$

$$\begin{array}{r}
 0,847095 \\
 10 \overline{) 9207575} \\
 \hline
 120 \\
 112 \\
 87 \\
 5750 \\
 2456 \\
 \hline
 9206
 \end{array}$$

$$2d_1 = 1,794190$$

$$\begin{array}{r}
 10 \\
 256 \\
 \hline
 2123
 \end{array}$$

$$\begin{array}{r}
 0,0030929 \\
 575 \\
 \hline
 0,0030354
 \end{array}$$

$$\begin{array}{r}
 1628209 \\
 729551 \\
 \hline
 9987506
 \end{array}$$

$$\frac{8}{64}$$

$$\begin{array}{r}
 0,005467 \\
 0,000016 \\
 \hline
 0,005483
 \end{array}$$

$$\begin{array}{r}
 2060 \\
 383
 \end{array}$$

$$d_2 = 1,829416$$

$$d_4 = 0,005483$$

$$\begin{array}{r}
 \text{high} = \left\{ \begin{array}{l} 1,678824 \\ 000023 \\ 2 \\ \hline 1,678849 \\ 5122 \\ \hline 1,656534 \\ 42 \end{array} \right.
 \end{array}$$

$$\begin{array}{r}
 - 0,021932 \\
 - 0,000383 \\
 \hline
 22315
 \end{array}$$

$$\begin{array}{r}
 1,678824 \\
 21922 \\
 \hline
 1,678849 \\
 21922 \\
 \hline
 1,656534 \\
 42
 \end{array}$$

$$\begin{array}{r}
 1,700758 \\
 8570011 \\
 406 \\
 \hline
 1,701164 \\
 4911011 \\
 80 \\
 \hline
 1,700352
 \end{array}$$

$$\begin{array}{r}
 126 \\
 88 \\
 149 \\
 108 \\
 54
 \end{array}$$

1,628309

the are hydro

$$\begin{array}{r}
 1,739552 \\
 689072 \\
 \hline
 2,428624 \\
 0,575670 \\
 \hline
 1,852954
 \end{array}$$

$$\begin{array}{r}
 689072 \\
 0,3627507 \\
 0,0269065 \\
 \hline
 0,2894149
 \end{array}$$

$$\begin{array}{r}
 1,628160 \\
 5822 \\
 \hline
 1,628742
 \end{array}$$

$$\begin{array}{r}
 18 \\
 8 \\
 \hline
 26
 \end{array}$$

$$\begin{array}{r}
 0,191638 \\
 829455 \\
 \hline
 0,252183
 \end{array}$$

$$\begin{array}{r}
 2,25 \\
 18 \\
 \hline
 20,25
 \end{array}$$

$$u_1 = 4(u_{1/2})^2$$

$$\sqrt{\frac{1}{2}} = 0,321751$$

$$\sqrt{\frac{1}{2}} = 0,927295$$

$$\sqrt{\frac{1}{2}} = 0,321751$$

$$\begin{array}{r} 1,287004 \\ 0,463647 \\ \hline - 1,750651 \end{array}$$

$$\log \frac{5}{4} = 1,609428$$

$$\log \frac{4}{2} = 0,693147$$

$$\log \frac{5}{1} = 1,609428$$

$$\begin{array}{r} 3,218876 \\ 1,386294 \\ \hline 4,605170 \\ 1,750651 \\ \hline 4,2,854519 = \frac{u}{100} \end{array}$$

$$u = 4,2854519$$

$$\sqrt[2]{1} = a t \frac{1}{3} = 0,321751$$

$$\sqrt[2]{2} = a t \frac{4}{3} = 0,927292$$

$$\sqrt[2]{2} = a t \frac{1}{2} = 0,321751$$

$$\sqrt[4]{1} = \frac{1}{2\sqrt{21}} = 0,108681$$

$$\sqrt[4]{2} = \frac{8}{\sqrt{21}} = 1,050601$$

$$\sqrt[4]{2} = \frac{2}{\sqrt{21}} = 0,411515$$

$$\alpha=2 \quad \beta=1 \quad \gamma=2 \quad \rho=0$$

$$\alpha=4 \quad \beta=1 \quad \gamma=2 \quad \rho=\sqrt{21}$$

$$\log \frac{\rho+\alpha}{\rho-\alpha} = \log \frac{5}{1} = 1,609428$$

$$\log \frac{\rho+\beta}{\rho-\beta} = \log \frac{4}{2} = 0,693147$$

$$\log \frac{\rho+\gamma}{\rho-\gamma} = \log \frac{5}{1} = 1,609428$$

$$\log \frac{\rho+\alpha}{\rho-\alpha} = \frac{\sqrt{21}+4}{\sqrt{21}-4} = 2,69002$$

$$\log \frac{\rho+\beta}{\rho-\beta} = \frac{\sqrt{21}+1}{\sqrt{21}-1} = 0,442568$$

$$\log \frac{\rho+\gamma}{\rho-\gamma} = \frac{\sqrt{21}+2}{\sqrt{21}-2} = 0,925638$$

$$\sqrt{21} = 4,58258$$

$$\rho^2 = 17. \quad \alpha=2 \quad \beta=0 \quad \gamma=2$$

$$\sqrt[2]{2} = a t \frac{3}{\sqrt{17}} = 0,629011$$

$$\log \frac{\sqrt{17}+2}{\sqrt{17}-2} = 1,05919$$

$$\sqrt[2]{2} = a t \frac{4}{2\sqrt{17}} = 0,212768$$

$$\log \frac{\sqrt{17}+0}{\sqrt{17}-0} = 1,84727$$

$$\sqrt[2]{2} = a t \frac{2}{\sqrt{17}} = 0,629011$$

$$\log \frac{\sqrt{17}+2}{\sqrt{17}-2} = 1,05919$$

$$\sqrt{17} = 4,12311$$

629519

89425

$\frac{1}{6}$

$$\frac{1}{6} \cdot 0,84645 - \frac{1}{6} \cdot 0,021750 - \frac{1}{6} \cdot 216 \cdot 0,00095$$

$\frac{1}{6}$ 0,84645
 0,021750
~~328560~~
 1,12860

0,222000

0,003420

1,12872

222000

0,89317

11286
22542

112860

22542

0,89317

2

0,84645

98

0,84556

21750
 22
 43500
 65250
 0,696006
 0,222000
 56
 98
 180
 224
 3420

112860
 222
 1126060
 342
1125718

0,927647 - 1

150515

0,777132

0,927144
 150515
0,776629

MAGYAR TUDOMÁNYOS AKADÉMIA KÖNYVTÁRA

59839
 - 2175
0,57682

0,59790
 2175
0,57615

$\lambda = 0,8$

$\log \sqrt{5+(2+\lambda)^2} = 0,644348$

$\sqrt{5+(2+\lambda)^2} = 1,210586$

$\log \sqrt{5+(2-\lambda)^2} = 0,496497$

$\sqrt{5+(2-\lambda)^2} = 1,115278$

~~$\log \sqrt{5+(1+\lambda)^2} = 0,157965$~~

~~$\sqrt{5+(1+\lambda)^2} = 1,17072$~~

~~$\log \sqrt{5+(1-\lambda)^2} = 0,224102$~~

~~$\sqrt{5+(1-\lambda)^2} = 1,10000$~~

$\log \sqrt{13+(1+\lambda)^2}$

1944

214

17072

$\frac{3}{0,8} + 1$
08 | 22 | 375

$\log \sqrt{13+(1-\lambda)^2}$

1624

8 | 38 | 475

0,957265-6
1,0451071
0,775704

2,178079
- 1,144095
1,633982

$\log \frac{215}{15} = 0,429233$
0,450363 - 1
0,889696

0,074846 - 1
0,676694
0,751540 - 1

$\frac{10}{8} + 1$
18

~~0,775704~~

0,564009
0,331054
0,248722
1,144095

$\frac{20}{8}$

0,352183
0,809455 - 1
0,191638

0,574031
0,900602 - 2
0,474633 - 1

0,038334
3047504
2085838

0,086688
800
31274298

1,554668
0,298286
0,575670

2,428624
689070

1,739551
11632982
0373503

0,026906-
2894149
0,5263219
0,3627507
6890726

0,007020
02040
9012240

104
96
112

187
16
122
187
2992

206/800
89
768
220

9002992
64/2442

700260
65-6540
1180406

0,580584 - 2
524722
9058862 - 2
0,0

3,25-6902
765-

9,006906-2

170952

42817

0,09240-2
0,806180-1
0,898610-3

0,964118-4
8,612360-1
0,576978-4

0,0079179000
0,0003771
1,0082950

3,25-6902
765-
0,257665
0,347504
0,010161

0,005590
0,922661
0,928251

$\frac{2}{2}$ p' 200069056

0,006926-2
0,5224922
0,482214-3
6020660
0,084274-2

0,842822

0,000230187
0,000920748

0,009809-2
0,081908-1
0,145989-2

0,0109955-5
0,0001044
0,0140999

0,01145700
9202
0,0123717

0,612260-1
0,406540-4
0,018900-4

0,008600-3
0,612360-1
0,778151
0,399111-3

172992
2992
-0,176984
-0,022122

$\frac{2}{2}$ q' = 0,000191
0,0000764
0,000255

0,418540-1
0,271842-4
0,903090
0,593472-4

0,022122
255-
0,021868

42817
49
0,042864
0,021922

0,224720-
0,602060-5
0,826780-5

$$\alpha_4 + 2\alpha_8 = 0,0217490$$

$$\alpha_4 + 8\alpha_8 = 0,0191897$$

$$-6\alpha_8 = 0,0025593$$

$$\alpha_8 = 0,0004266$$

$$\begin{array}{r} 0,0217490 \\ 0,0008532 \\ \hline 0,0226022 \end{array}$$

$$\begin{array}{r} 0,0226022 \\ 8532 \\ \hline 217490 \end{array}$$

$$\begin{array}{r} 0,0226022 \\ 82140 \\ \hline 191894 \end{array}$$

$$\begin{array}{r} 0,089247 \\ 1,806180 \\ \hline 0,283067-2 \end{array}$$

774195
600203

0,173992

0,409079

1,687644
292

1,688108

58907

1,228137
64

1,228191

588
576

12

64
573

512

6170
576

410

0,0191897

0,056400
2507

58907

MAGYAR
TUDOMÁNYOS AKADEMIÁ
KÖNYVTÁRA

1,687644
56400
69

1,744111

2899

1,773112

0,226796

0,55520

362216

0,997004

0,098470

1

0,204509

0,310776

1

362216

0,948760-2

0,08883

226745

916251

0,072829

184

160724

24186

0,080062

2507
292

2899

$$\lambda = 1$$

$$1) = \arctan \frac{4}{\sqrt{13}} = 0,927293$$

$$2) = \arctan \frac{8}{\sqrt{21}} = 1,050601$$

$$3) = \arctan \frac{1}{2\sqrt{21}} = 0,108681$$

$$4) = \arctan \frac{1}{\sqrt{13}} = 0,321751$$

$$5) = \arctan 0 = 0$$

$$6) = \arctan \frac{4}{3\sqrt{17}} = 0,212768$$

$$7) = \arctan \frac{3}{\sqrt{17}} = 0,629011$$

$$8) = \arctan \infty = 0,570796$$

$$\sqrt{21} = 4,58258$$

$$\sqrt{13} = 3,60556$$

$$\sqrt{17} = 4,12311$$

$$1,322219$$

$$1,61110$$

$$0,661110$$

$$1,200449$$

$$0,615225$$

$$\text{II } 9) = \frac{\sqrt{17}}{\sqrt{5}} \frac{5}{6,58258} = 0,726901$$

$$10) = \frac{\sqrt{13}}{3} \frac{5,60556}{6,12311} = 0,095553$$

$$11) = \frac{\sqrt{20}}{\sqrt{8}} \frac{4}{5,58258} = 0,124784$$

$$12) = \frac{\sqrt{8}}{2} \frac{6,60556}{7,12311} = 0,271141$$

$$(1,5)^2 + 2^2 = 2,5^2$$

0,602060
0,477121
0,124939
53° 7' 48"

0,902090
0,661110
0,241980
60° 11' 42"

0,000000
0,661110
0,338890-1
0,301030
0,037860-1
6° 13' 37"

0,000000
0,477121
0,522879-1
0,214159
3782
179
0,221751

0,602060
0,615225
0,986835-1
0,477121
0,509714-1
0,296706
15999
63
0,312768

0,477121
0,615225
0,861896-1
36° 2' 23"
0,628319
581
111
0,629011

MAGYAR
TUDOMÁNYOS AKADÉMIA
KÖNYVTÁRA

698770

0,9102090

9)

0,112942
0,1556972

10

11

0,615225
0,349485
0,964710
0,818796
0,146314

0,556972
0,748619
1,305591
0,786972
0,518619
477121
0,041498

1,301020
0,650515
0,602060
1,252575
0,746836
0,505739
451545
0,054194

0,150515
0,819910
0,970425
0,852670
0,117755

0,165286-1
0,627784-1
0,527502-1
0,326901

0,618027-2
0,627784-1
0,980243-2
0,0955588

0,722951-2
0,627784-1
0,096167-1
0,124784

0,920784-1
0,627784-1
0,292997
1,96225

$$1) = \arctan \frac{4}{3} = 0,927294$$

$$2) = \arctan \frac{1}{3} = 0,321751$$

$$3) = \arctan \frac{2}{\sqrt{6}} = 0,684757$$

$$4) = \arctan \frac{6}{\sqrt{14}} = 1,013198$$

$$5) = \arctan \frac{2}{3\sqrt{14}} = 0,176322$$

$$6) = \arctan \frac{2}{\sqrt{6}} = 0,684757$$

$$7) = \arctan 0 = 0$$

$$8) = \arctan \frac{2}{\sqrt{12}} = 0,523599$$

$$9) = \arctan \frac{2}{\sqrt{12}} = 0,523599$$

$$10 = \log \frac{\sqrt{10}}{\sqrt{2}} \frac{2+\sqrt{6}}{2+\sqrt{14}} \frac{4,44949}{5,74168}$$

$$11 = \log \frac{\sqrt{8}}{2} \frac{2+\sqrt{8}}{2+\sqrt{12}} \frac{4,82843}{5,46411}$$

$$12 = \log \frac{\sqrt{13}}{\sqrt{5}} \frac{1+\sqrt{6}}{1+\sqrt{14}} \frac{3,44949}{4,74168}$$

$$13 = \log \frac{\sqrt{8}}{2} \frac{2+\sqrt{8}}{2+\sqrt{12}} \frac{4,82843}{5,46411}$$

$$\sqrt{6} = 2,44949$$

$$\sqrt{14} = 3,74168$$

$$\sqrt{12} = 3,46411$$

$$\sqrt{8} = 2,82843$$

$$451545$$

$$10 = 0,549758$$

$$11 = 0,222893$$

$$12 = 0,120175 \quad 12 = 0,159592$$

$$13 = 0,222893 \quad 13 = 0,222893$$

1	2	3	4	5	8
0,602060	0,000000	0,301030	0,778151	0,501030	0,301030
477121	477121	$\sqrt{6} = 0,389076$	$\sqrt{14} = 0,573064$	0,573064	$\sqrt{12} = 0,529591$
124939	0,522879-1	0,911954-1	0,205087	0,727966-1	0,761439-1
53° 7' 48"	18° 26' 5"	39° 18' 58"	58° 3' 7"	477121	30°
925025	314159	680678	1,072291	0,250845-1	0,523599
2036	7563	3782	873	10° 6' 9"	
233	29	257	34	1745	
927294	321751	684787	1,013198	44	

0,500000	451545	0,556972	
0,648310	683806	0,524979	
1,148310	1,135351	1,081851	
909550	1,038550	1,025417	
0,238757	0,096801	0,056534	
	0,301030	0,0349485	
0,150515	0,707520	0,675932	
0,759028	1,038550	1,025417	
0,909553			

MAGYAR TUDOMÁNYOS AKADÉMIA KÖNYVTÁRA

0,277956-1	0,985880-2	0,752010-2
627784-1	627784-1	627784-1
0,740172-1	0,348096-1	0,114526-1

0,684751	0,528966	0,047198
1,013198	549758	0,445786
0,684751	260350	0,445786
2,382700	1,339074	1,938770
1,339074		523599
1,043626		1,415171

927294
321751
605543
1211086
1211186

$$1) a^2 = 1,107150$$

$$2 = 10 = 0$$

$$3 = a^2 = 1,107150$$

$$4 = a^2 = 1,107150$$

$$5 = 0 = 0$$

$$6 = 0 = 0^2$$

$$7 = 0 = 0$$

$$8 = 0 = 0$$

$$9 = 1$$

$$\frac{0,785398}{a^2} = 45^\circ$$

$$10 = \log 1 = 0$$

$$11 \log 1 = 0$$

$$12 = 0$$

$$13 = \log \sqrt{2} = 0,346573$$

~~0,791~~

~~0,079181~~

0,307000

620 26' 6"

1,099557
7563
30

1,107150

0,150515

0,177579 -1
62 77 84 -1

0,539795 -1

-0,10715
2,21400

2,254000

1,570796
693146

2,263942

after

$$\frac{a(1 + \frac{z}{a^2})}{a} \quad \frac{z + a(1 + \frac{z}{a^2})}{z + a(1 + \frac{z}{a^2})}$$

2428244

2263942
000400

b =

$$\arcsin \frac{hm}{s\sqrt{h^2+s^2+m^2}}$$

$$\arcsin \frac{sm}{h\sqrt{h^2+s^2+m^2}}$$

$$h^2 = 2009,04$$

$$h = 44,80$$

$$\log h = 1,651278$$

$$3,302556$$

$$s^2 = 222,75$$

$$s = 14,925$$

$$\log s = 1,173914$$

$$2,247828$$

$$m^2 = 855,56$$

$$m = 29,25$$

$$\log m = 1,466126$$

$$2,932252$$

$$\hline 3085,35$$

$$\log(V)^2 = 3,489204$$

$$\log V = 1,744652$$

$$\begin{array}{r} 1,651278 \\ 1,466126 \\ \hline 3,117404 \\ 2,918566 \\ \hline 0,198838 \end{array}$$

$$57^{\circ}40'50''$$

$$\begin{array}{r} 0,954878 \\ 1,1636 \\ 242 \end{array}$$

$$\begin{array}{r} 1,006716 \\ 1,73666 \\ \hline 833050 \\ 1,666100 \end{array}$$

$$\begin{array}{r} \hline 0,3288 \\ 1,3288 \\ \hline 3,0222 \end{array}$$

$$\begin{array}{r} 1,173914 \\ 1,1744652 \\ \hline 2,918566 \end{array}$$

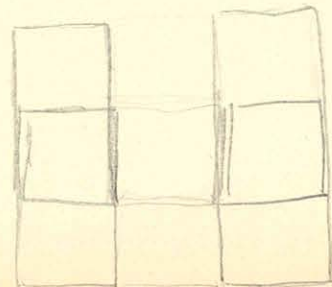
$$\begin{array}{r} 1,173914 \\ 1,466126 \\ \hline 2,640040 \\ 5,395930 \\ \hline 0,244110 \end{array}$$

$$\begin{array}{r} 1,651278 \\ 1,1744652 \\ \hline 3,395930 \end{array}$$

$$9^{\circ}57'7''$$

$$\begin{array}{r} 157080 \\ 18581 \\ 25 \\ \hline 0,173666 \end{array}$$

$$\begin{array}{r} 83305 \\ \hline 3220 \end{array}$$



$$1) = \arctan \frac{5}{\sqrt{11,25}} = 0,979924$$

$$2) = \arctan \frac{7}{\sqrt{17,25}} = 1,035295$$

$$3) = \arctan \frac{2}{3,5\sqrt{17,25}} = 0,136727$$

$$4) = \arctan \frac{2}{2,5\sqrt{11,25}} = 0,234141$$

$$5) = \arctan \frac{1}{3\sqrt{13,25}} = 0,091320$$

$$6) = \arctan \frac{1}{\sqrt{15,25}} = 0,250688$$

$$7) = \arctan \frac{4}{\sqrt{15,25}} = 0,797397$$

$$8) = \arctan \frac{12}{\sqrt{10,25}} = 1,276281$$

$$9 = \log \frac{\sqrt{13,25}}{\sqrt{7,25}} \cdot \frac{5,25411}{6,15332} = 0,162372$$

$$10 = \log \frac{\sqrt{11,25}}{\sqrt{9,25}} \cdot \frac{5,64007}{5,90513} = 0,051951$$

$$11 = \log \frac{\sqrt{16,25}}{\sqrt{10,25}} \cdot \frac{4,25411}{5,15332} = 0,061887$$

$$12 = \log \frac{\sqrt{6,25}}{\sqrt{4,25}} \cdot \frac{6,64007}{6,90513} = 0,150688$$

МАТРИКА
ИЗДАНИЕ АКАДЕМИИ
КОМПЬЮТЕРОВ

$\begin{array}{r} 0,698970 \\ 0,525577 \\ \hline 0,173393 \\ 56^{\circ} 8' 44'' \\ \hline 9977284 \\ 2327 \\ 213 \\ \hline 0,979924 \end{array}$	$\begin{array}{r} 0,845098 \\ 0,618395 \\ \hline 0,226703 \\ 59^{\circ} 19' 54'' \\ \hline 1,029744 \\ 5527 \\ 24 \\ \hline 1,035295 \end{array}$	$\begin{array}{r} 0,301030 \\ 0,618395 \\ \hline 0,682625 - 1 \\ 0,544068 \\ \hline 0,138567 - 1 \\ 2^{\circ} 50' 2'' \\ \hline 0,122173 \\ 14544 \\ 10 \\ \hline 0,136727 \end{array}$	$\begin{array}{r} 0,201030 \\ 0,525577 \\ \hline 0,775453 - 1 \\ 0,297940 \\ \hline 0,277513 - 1 \\ 13^{\circ} 24' 55'' \\ \hline 0,226893 \\ 6981 \\ 267 \\ \hline 0,234141 \end{array}$
$\begin{array}{r} 0,000000 \\ 0,561108 \\ \hline 0,438892 - 1 \\ 0,477121 \\ \hline 0,961771 - 2 \\ 5^{\circ} 13' 56'' \\ \hline 0,087267 \\ 3781 \\ 272 \\ \hline 0,091320 \end{array}$	$\begin{array}{r} 0,000000 \\ 0,591625 \\ \hline 0,408365 - 1 \\ 14^{\circ} 21' 48'' \\ \hline 0,244246 \\ 6109 \\ 233 \\ \hline 0,250688 \end{array}$	$\begin{array}{r} 0,602060 \\ 0,591625 \\ \hline 0,010425 \\ 45^{\circ} 41' 15'' \\ \hline 0,785398 \\ 11926 \\ 73 \\ \hline 0,797397 \end{array}$	$\begin{array}{r} 0,079181 \\ 0,561108 \\ \hline 0,518073 - 1 \\ 18^{\circ} 14' 44'' \\ \hline 0,314156 \\ 4072 \\ 213 \\ \hline 0,318441 \end{array}$
$\begin{array}{r} 0,561108 \\ 430169 \\ \hline 0,190939 \\ 0,728687 \\ \hline 0,859626 \\ 0,789109 \\ \hline 0,070517 \\ 0,848294 - 2 \\ 637784 \\ \hline 0,210510 - 1 \end{array}$	$\begin{array}{r} 0,525577 \\ 482071 \\ \hline 0,042506 \\ 0,751285 \\ \hline 0,793791 \\ 0,771229 \\ \hline 0,022562 \\ 0,352778 - 2 \\ 627784 \\ \hline 0,715594 - 2 \end{array}$	$\begin{array}{r} 0,605427 \\ 0,505262 \\ \hline 0,100065 \\ 0,638899 \\ \hline 0,738964 \\ 0,712087 \\ \hline 0,026877 \\ 0,429281 - 2 \\ 637784 \\ \hline 0,791597 - 2 \end{array}$	$\begin{array}{r} 0,397940 \\ 0,314195 \\ \hline 0,083745 \\ 0,822173 \\ \hline 0,905918 \\ 0,839172 \\ \hline 0,066746 \\ 0,824425 - 2 \\ 637784 \\ \hline 0,186641 - 1 \end{array}$

$$1) \frac{1}{4} = \arctan \frac{16}{\sqrt{33}} = 1,226094$$

$$2 = \arctan \frac{1}{\sqrt{33}} = 0,172351$$

$$3 = \arctan \frac{12}{\sqrt{26}} = 1,168992$$

$$4 = \arctan \frac{20}{\sqrt{42}} = 1,257427$$

$$5 = \arctan \frac{4}{5\sqrt{42}} = 0,122823$$

$$6 = \arctan \frac{4}{3\sqrt{26}} = 0,255764$$

$$7 = 0 =$$

$$8 = \arctan \frac{2}{\sqrt{36}} = \arctan \frac{1}{3} = 0,321756$$

$$9 = \arctan \frac{4}{3} = 0,927294$$

$$10 = \log \frac{\sqrt{26}}{\sqrt{10}} \frac{4 + \sqrt{26}}{4 + \sqrt{42}} = 0,336380$$

$$11 = \log \frac{\sqrt{20}}{4} \frac{4 + \sqrt{32}}{4 + \sqrt{36}} = 0,076656$$

$$12 = \log \frac{\sqrt{48}}{\sqrt{25}} \frac{1 + \sqrt{26}}{1 + \sqrt{42}} = 0,042148$$

$$13 = 11$$

$$\sqrt{26} = 5,09904$$

$$\sqrt{32} = 5,65685$$

$$\sqrt{42} = 6,48075$$

752575

1)
1,204120
0,1759257

0,444883
70° 15' 0"
1,221731
4363

1,226094

2)
0,000000
0,1759257

0,240743 -1
9° 52' 30"
0,157080
15126
145

0,172351

3)
0,079181
0,707487

0,371694
66° 58' 42"
1,151917
16872
203

1,168992

4)
1,301030
0,811625

0,489405
72° 2' 45"
1,256607
582
218

1,257437

5)
0,602060
0,811625

0,790425 -1
698970

0,091465 -1
7° 2' 14"
0,122173
582
68

1,22823

6)
0,602060
0,707487

0,894543 -1
477121

0,417452 -1
14° 39' 15"
0,244346
11245
73

255764

8)
0,000000
0,477121

0,522879 -1
18° 26' 7"
0,314159
7563
34

0,221756

9)
0,602060
0,477121

0,124939
53° 7' 48"
0,925025
2086
232

927294

MAGYAR
TUDOMÁNYOS AKADÉMIA
KÖNYVTÁRA

0,707487
0,958996

1,666483
11020395

0,646088
0,146088
0,164614 -1
627784 -1

0,526830 -1

0,650515
0,984806

1,635351
602060

0,033291
~~0,172351~~
0,033291
0,522327 -2
627784 -1

0,884543 -2

0,806292
0,785262

1,591654
698970

0,892684
0,873945

0,018739
0,272746 -2
627784 -1

0,634962 -2

0,652846-1
 582840-1
 0,295686-1

57-
 595

239
 62
 478
 1434
 741

0,184098
 0,965615-1
 0,149713

141160
 0,17206
 1,20954

$\frac{0+V14}{V17} = 10 = \log$
 $\frac{0+V26}{V5} = 11 = \log$
 $\frac{0+V32}{V13} = 12 = \log$
 $\frac{1+V14}{V25} = 13 = \log$
 $\frac{1+V26}{V13} = 14 = \log$
 $\frac{3+V32}{V13} = 15 = \log$
 $\frac{3+V22}{V13} = 16 = \log$

$1) = \arcsin \frac{9}{9} = 90^\circ$
 $2) = \arcsin \frac{19}{19} = 90^\circ$
 $3) = \arcsin \frac{14}{14} = 90^\circ$
 $4) = \arcsin \frac{12}{12} = 90^\circ$
 $5) = \arcsin \frac{5}{5} = 90^\circ$
 $6) = \arcsin \frac{3}{3} = 90^\circ$
 $7) = 0$
 $8) = \arcsin \frac{2}{2} = 90^\circ$
 $9) = \arcsin \frac{9}{9} = 90^\circ$

n=

$$1) = \arccos \frac{1}{\sqrt{5}} =$$

$$2) = \arcsin \frac{1}{\sqrt{5}} =$$

$$3) = 0 = 0$$

$$4) = \frac{2}{\sqrt{6}} = 0,684717$$

$$5) = \frac{1}{2\sqrt{6}} = 0,201357$$

$$6) = \frac{\pi}{2} =$$

$$7) = 0 =$$

$$8) = \frac{2}{\sqrt{6}} = 0,684717$$

$$9) = \frac{1}{2\sqrt{6}} = 0,201357$$

$$10) = \log \sqrt{5} \frac{1+\sqrt{2}}{1+\sqrt{6}} = 0,447863$$

$$11) = \log \sqrt{5} \frac{1+\sqrt{2}}{1+\sqrt{6}}$$

$$12) = \log \sqrt{5} \frac{1+\sqrt{2}}{1+\sqrt{6}}$$

13) -

$$\sqrt{6} = 2,44950$$

$$\sqrt{2} = 1,41421$$

$$\begin{array}{r} 847570 \\ 184059 \\ \hline 1031629 \\ 0,001629 \\ \hline 0,520085 - 2 \\ 362216 \\ \hline 0,862301 - 2 \\ \hline 0,072829 \end{array}$$

$$\begin{array}{r} 0,301030 \\ 0,389076 \\ \hline 0,911954 - 1 \\ 39^{\circ}13'53'' \\ 0,680678 \\ 3782 \\ 257 \\ \hline 0,684717 \end{array}$$

$$\begin{array}{r} 0,690106 \\ 0,209894 - 1 \\ 11^{\circ}32'13'' \\ 0,191986 \\ 9208 \\ 63 \\ \hline 0,201357 \end{array}$$

$$\begin{array}{r} 0,047726 - 1 \\ 1,570976 \\ 0,111616 \\ 222222 \end{array}$$

$$\begin{array}{r} 0,349485 \\ 0,382775 \\ \hline 0,732260 \\ 0,527756 \\ \hline 0,194504 \end{array}$$

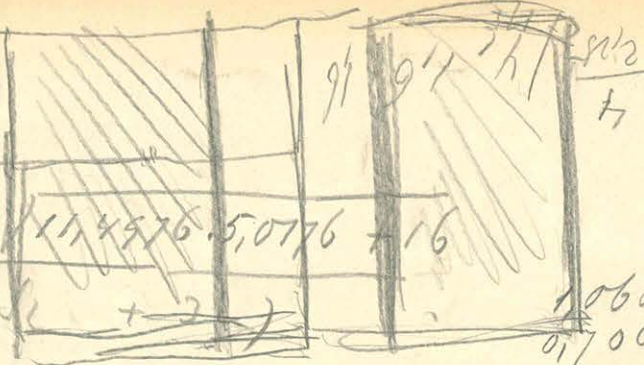
$$\begin{array}{r} 0,288929 - 1 \\ 0,637784 - 1 \\ \hline 0,651145 - 1 \end{array}$$

$$\begin{array}{r} -10,684717 \quad | \quad 0,402714 \\ \quad \quad \quad \quad \quad \quad \quad 447863 \\ \quad \quad \quad \quad \quad \quad \quad 447863 \\ \hline \quad \quad \quad \quad \quad \quad \quad 1,298440 \\ \quad \quad \quad \quad \quad \quad \quad 684717 \\ \hline \quad \quad \quad \quad \quad \quad \quad 0,693723 \end{array}$$

0,684717

3,24

104976



4.9,4976 $\sqrt{11,4576 \cdot 5,0776 + 16}$

3,24 ($\frac{1}{2} + 32$)

1060607
 01700496
 1,761103

37,9904 $\sqrt{73,6902}$
 3,24 . 89,6902

57,6902
 1,867410

48° 17' 48"

1,579677
 933705
 2,513378
 0,510545
 2,002833
 1,952745
 0,050088

877758
 4945
 237
 842936
 10,3684

90
 225

4.9,2684 $\sqrt{11,3684 \cdot 4,9284 + 16}$

2,22 ($\frac{1}{2} + 32$)

4055699
 0,692706
 1,748405
 56,0280

27,4736 $\sqrt{72,0280}$

2,22 . 88,0280

1,857501

MAGYAR TUDOMÁNYOS AKADÉMIA KÖNYVTÁRA

1,572725
 928751

48° 17' 27"

2,502478
 0,507856

877758

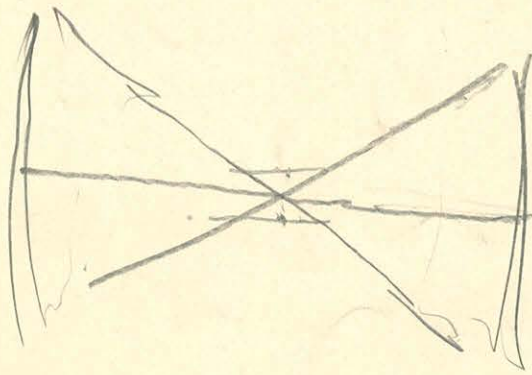
1,994620
 944621

842834

0,050000

842664
 252
 454
 83728
 481652
 1,5861010
 2259522
 1198373
 505150
 2,491523
 922791
 456772

162626
 847582



544015

11735611

0,684845
 1,050766

06,96720,4015
 0,2(86,4015)

0,22($\frac{1}{2} + 32$)

4.9,2684 $\sqrt{11,3684 \cdot 4,9284 + 16}$

$0,776684$
 $+ 1,0729078$
 $0,0548840$
 $0,2066228$
 $0,2045294$

 $1,5399440$
 7778670

 $0,7620770$

~~3899274~~
 $1,260077$
~~0,7778670~~

$0,1022647$
 $0,0360610$
 $- 0,06278600$

 $0,4082010$

$0,656116$
 $1,2622884$
 $0,6236692$
 $0,5484647$
 $0,497212$

 $2,19316343$
 2242721

 $2,7073612$

~~6278~~
 $2,946320$

$1,0360610$
 7040677

 $0,3319933$
~~96448~~
 $0,248606$

~~2247212~~
~~2151242~~
 $- 0,2242721$
 $0,165997$
 $0,221$

MAGYAR
TUDOMÁNYOS AKADÉMIA
KÖNYVTÁRA

5984
 9984
 4866
 4865
 610873
 606009
 601142
 595914596274
 $2,4$

$1,46$
 $8,65918$
 $3,06904$
 $1,4128819$

 $0,598016$
 $0,462067$
 $10,668706$

404429
 1019510

 48611
 5808910

 485
 208
 $4,0166699$

12620000
 $28665000 - 0 = 91x2 + 8x$
 5920
 $8611606 - 9091198 = 91x22 + 8x9$

6012006
 9002109
 $8x^{12} = 9000713$
 $21x^8$

$91x10000 + = 91x$
 $6699910 + = 4x$
 $4752000 + = 2x$
 $02665000 - = 8x$

$1057910 = 2x^3 + 4x$
 68
 89
 $8x + \frac{1}{2}x^{12} = 9166788$
 9083294
 1396088
 4608806
 $6662006 - = \frac{2}{8}x$

$$s_1^2 = 5$$

$$s_2^2 = 9$$

$$s_1 = +2 \left(\frac{1}{\sqrt{5}} - \frac{1}{3.5} \right) = 0,7610928$$

$$s_2 = 0$$

$$d_3 = \frac{1}{6} \frac{4}{(9+16)3} \left(-3 + 2 \frac{100}{25} + \frac{1}{9} \right) = 0,04545290$$

$$\begin{array}{r}
 0,4472126 \\
 0666667 \\
 \hline
 0,3805469 \\
 0,17610928
 \end{array}$$

$$\begin{array}{r}
 5,1111111 \\
 20,4444444 \\
 \hline
 450
 \end{array}$$

$$\begin{array}{r}
 0,832882 \\
 0000697 \\
 \hline
 0,8329519
 \end{array}$$

$$\begin{array}{r}
 1,8925478 \\
 9272958 \\
 \hline
 0,9652520
 \end{array}$$

$$+ 0,1040672$$

$$\begin{array}{r}
 - 0,4826260 \\
 7610928 \\
 454321
 \end{array}$$

$$\begin{array}{r}
 - 0,1040672 \\
 4826260 \\
 7610928 \\
 454321 \\
 \hline
 1,2932191
 \end{array}$$

$$\begin{array}{r}
 1,2891519 \\
 1040672 \\
 \hline
 1,1850847 \\
 2081344 \\
 \hline
 1,2832191
 \end{array}$$

$$\begin{array}{r}
 0,10416441 \\
 0,0000485 \\
 \hline
 0,10421291
 \end{array}$$

$$8d_4 + 24d_{12} = 1,246516$$

$$d_4 + 3d_{12} = 0,1683145$$

$$d_4 - d_{12} = 0,1659970$$

$$4d_{12} = 0,0023175$$

$$d_{12} = 0,00057938$$

$$d_4 = 0,1665764$$

$$d_8 = -0,006106675$$

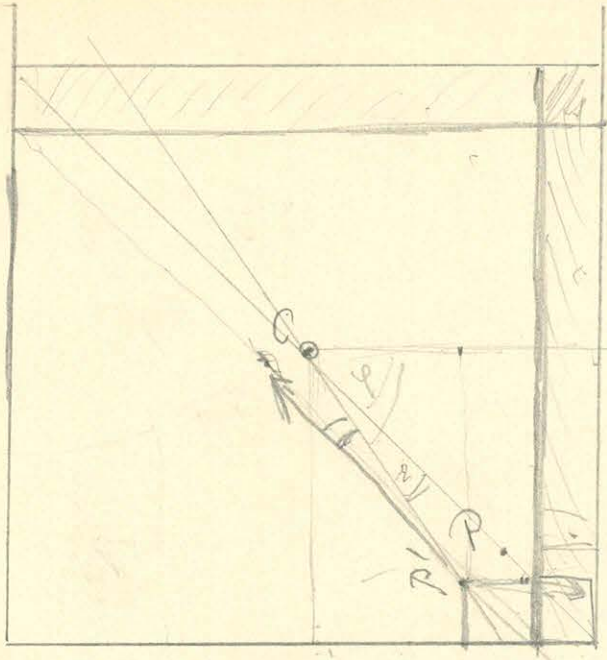
MAGYAR
TUDOMÁNYOS AKADEMIA
KÖNYVTÁRA

$$\begin{array}{r}
 416441 \\
 15267 \\
 \hline
 431708 \\
 4855 \\
 \hline
 432293
 \end{array}$$

$$\begin{array}{r}
 0,66620600 \\
 695256 \\
 \hline
 0,67325856
 \end{array}$$

$$\begin{array}{r}
 0,67325856 \\
 0488584 \\
 \hline
 0,62440512
 \end{array}$$

$$\begin{array}{r}
 0,62440512 \\
 \hline
 62440300
 \end{array}$$



$$l(1 - \sin(\gamma + \epsilon))$$

$$l(1 - \sin(\gamma + \epsilon))$$

$$l \cos(\gamma + \epsilon) + l(1 - \sin(\gamma + \epsilon)) + x = l$$

$$x = l + \left(\frac{2x}{\sqrt{2}} - \frac{1}{\sqrt{2}}\right) - \frac{1}{\sqrt{2}} + \frac{1}{\sqrt{2}} - \frac{1}{\sqrt{2}} + x = x$$

$$x = \frac{2}{\sqrt{2}} \epsilon$$

$$\frac{4}{\sqrt{2}}(1+k) + 2$$

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$$\left. \begin{array}{l} 4kl - 4kl \\ 4kl - 4kl \end{array} \right\} 4l(k-1)$$

$$4l(k-1) - 2l$$

$$\frac{4}{\sqrt{2}}(1-k) - \frac{2}{\sqrt{2}}$$

$$\frac{2}{\sqrt{2}} - 2$$

$$2(k-1)$$

$$l\left(\frac{2}{\sqrt{2}} - 1\right) - l$$

$$1 - (k-1) \frac{2}{\sqrt{2}}$$

$$(2k-1)$$

$$l_1 = 0$$

$$\square \quad a=6 \quad c=1 \quad c=2$$

$$II-II = \frac{1}{2} \lg \frac{5}{1} + \lg \frac{2+\sqrt{5}}{2+3}$$

$$l_2 = \arctan \frac{4}{3} = 0,9272958$$

$$III-III = \frac{1}{2} \lg \frac{8}{4} + \lg \frac{1+\sqrt{5}}{1+2}$$

$$l_3 = \arctan \frac{1}{2} = 0,2217515$$

$$II-II = 0,628918$$

$$l_4 = \frac{\pi}{2} = 1,5707963$$

$$III-III = 0,104609$$

$$1,8925478$$

$$698970$$

$$349485$$

$$\sqrt{5} = 2,236068$$

$$50000091$$

$$0,602060$$

$$477121$$

$$0,124939$$

$$53^\circ 7' 48\frac{1}{2}''$$

$$18^\circ 26' 64''$$

$$0,9250245$$

$$20262$$

$$2351$$

$$0,3141592$$

$$75631$$

$$291$$

$$0,9272958$$

$$0,2217515$$

$$1,5707963$$

$$1,609408$$

$$0,804719$$

$$0,693147$$

$$0,246574$$

$$698970$$

$$0,626963$$

$$698970$$

$$0,927993 - 1$$

$$349485$$

$$0,277478$$

$$0,442229 - 1$$

$$262216$$

$$0,805445 - 1$$

$$0,570078$$

$$602060$$

$$0,907958 - 1$$

$$46574$$

$$150515$$

$$0,058473$$

$$0,766955 - 2$$

$$262216$$

$$0,129177 - 1$$

$$104182$$

MAGYAR
TUDOMÁNYOS AKADÉMIA
KÖNYVTÁRA

$$9527380$$

$$- 0,9272958$$

$$0,787116$$

$$0,553122$$

$$0,6425030$$

$$0,628918$$

$$0,269278$$

$$1551699$$

$$927296$$

$$624403$$

33,582025
71942467

41,525492

14402025
7942467

22,245492

19,180000

4,795

29,935492

6986

1,6183147
 $\sqrt{V} = 0,8091574$
 $V = 6,444028$

1,2491899
0,6745949

3,727101

1,5206542
0,7652271

5,8254176

1,4761864
0,7280932

5,971224

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Q=10. Longitudinalis

$$s_1 = 2.635046 \left[\frac{1}{4.727101 \cdot \sqrt{15.402025}} - \frac{1}{6.444028 \cdot 34.582025} \right] = 0.024367825$$

$$\begin{array}{r} 72,806928 \\ 0,01373496 \\ 0,00448737 \\ \hline 0,00924759 \end{array}$$

$$s_2 = \frac{1}{6} \frac{3.795 \cdot 2.635046}{[22,345492 + 14,402025 \cdot c] \cdot 4.727101} \left[-3 + 2 \frac{545,01200}{[N]} + \frac{1}{22,345492} \right] = 0.017156718$$

$$\begin{array}{r} 122,345492 = N^2 \\ 578,33949 \\ 3470,03694 \\ 10,000000 \\ \hline 0,0028818737 \end{array}$$

$$\begin{array}{r} 4,4546963 \\ 5,9093926 \\ 0440512 \\ \hline 5,9534444 \end{array}$$

$$s_3 = \frac{1}{6} \frac{5.795 \cdot 2.635046}{[41,525492 + 33,582025 \cdot c] \cdot 6.444028} \left[-3 + 2 \frac{1808,4175}{[N]} + \frac{1}{41,525492} \right] = 0.014651048$$

$$\begin{array}{r} 233,17568 \\ 41,52549 \\ \hline 274,70117 = N \\ \hline \cancel{1770,1820} \\ 1770,1820 \\ 10621,0920 \\ 15,270091 \\ \hline 0,0014377139 \end{array}$$

$$\begin{array}{r} 6,5832175 \\ 10,1664350 \\ 0240816 \\ \hline 10,1905166 \end{array}$$

$$s_1 + s_2 + s_3 = \begin{array}{r} 0,0243678 \\ 171567 \\ 146510 \\ \hline 0,0561755 \end{array}$$

$$\begin{array}{r} + 0,3495645 \\ 1,0421962 \\ \hline 1,3917607 \\ - 0561755 \\ \hline + 1,3355852 \varphi^3 \end{array}$$

$$\begin{array}{r} 2,3006818 \\ 2162895 \\ \hline 2,0843923 \end{array}$$

Transmissin

$$\delta_1 = \frac{4,795 \cdot 2,635046}{12,635046} \left(\frac{1}{5,471334 \cdot 22,992025} - \frac{1}{5,825418 \cdot 26,992025} \right) =$$

$$\begin{array}{r} 125,79705 \\ 0,0079493120 \\ 63597117 \\ \hline 0,0015896003 \end{array}$$

$$\delta_1 = 0,020084673$$

$$\delta_2 = 0$$

$$\delta_3 = \frac{0,005090509}{0,025178182}$$

$$\begin{array}{r} 22,992025 \\ 22,992025 \\ \hline 56,927517 \end{array}$$

$$\delta_3 = \frac{1}{3} \left[\frac{4,795 \cdot 2,635046}{22,992025 \cdot 29,992025} + 4 \cdot \frac{6,943467}{5,825418} \right] \left\{ -3 + 2 \frac{56,927517}{N} + \frac{22,992025}{29,992025} \right\} =$$

$$N = \frac{780,24568}{27,77387} = 28,12$$

mit

$$\frac{12,67}{4707,0516} = 0,0026842802$$

$$\delta_{3n} = 0,0008937667$$

$$\delta_2 =$$

$$3240,742191$$

$$\begin{array}{r} 0,3591585 \\ 1,1051073 \\ 0,0251782 \\ \hline 1,4894440 \end{array}$$

$$\begin{array}{r} 4,0107225 \\ - 5,0214450 \\ 1,6775215 \\ \hline 5,6989665 \end{array}$$

$$1,4894440 \varphi^3$$

$$\begin{array}{r} 0,8258970 \\ 1,5707960 \\ \hline 2,3966930 \\ 1,864787 \\ \hline 2,2102146 \end{array}$$

kurz $\delta_1 = +\frac{1}{5} 2,0970870\varphi + \frac{1}{5} 1,3355852\varphi^3$

kurz $\delta_2 = +\frac{1}{5} 2,1549510\varphi - \frac{1}{5} 1,4894440\varphi^3$

$$P' - P = 0,0575640 = 8d_4 + 16d_8$$

$$Q' - Q = 0,1538588 = \frac{64}{3}d_4 + \frac{512}{3}d_8$$

$$0,0071955 = d_4 + 2d_8$$

$$0,0075121 = d_4 + 8d_8$$

$$-(P' + P) = -4,2528380 = 4d_2 + 12d_6$$

$$-(Q' + Q) = -3,8250292 = \frac{8}{3}d_2 + 72d_6$$

$$-1,0630845 = d_2 + 3d_6$$

$$-1,0597860 = d_2 + 27d_6$$

$$F = -\frac{1}{5} \left\{ 1,0635468 \sin 2\varphi - 0,0071900 \sin 4\varphi - 0,00015410 \sin 6\varphi - 0,00000277 \sin 8\varphi \right\}$$

transmission

0

0,420788
 0,301030
~~0,119758~~
 0,721818
~~0,762053~~

 0,958765 -1
 0,721818
 765227

 0,956491 -1
 0,680785

 0,275706 -1
 10° 41' 4"
 0,1745229
 119264
 194

 0,1864787

0,420788
 0,680785
~~0,740003 -1~~
 1,101573
~~762052~~

 0,338520

 1,101573
 765227

 0,336246
 0,201030

 0,035216
 47° 19' 13 1/2"
 0,8203047
~~119264~~
 55269
 654

 0,8258970

$\frac{II}{2}$

1,5707960

0

1,432285
 1,361570

 0,069665
 0,034833

 8,106380
 5,471224
 2,635046
 5,825418

 8,460464

 0,908827
 0,927394

 0,981433 -1
 34822

 0,016266

 0,211281 -2
 362216

 0,572497 -2
 II-II
0,0374579

1,029156
 841576

 0,797580
 0,098790

 10,266334
 5,471224
 4,795000
 5,825418

 10,620418

 1,011415
 1,026142

 0,985273 -1
 98790

 0,084063

 0,924605 -2
 262216

 0,286821 -1
 III-III
0,193562

1,651794
 0,179591
 0,510045

 2,341430
 186479

 2,154951 II-I
 2,097387 II-II

 4,252338 II-I

 2,115271
 4,230542

$Q = 10 \text{ re.}$

$a = 4,795 \quad b = 1 \quad c = 2,625046 \quad l = 1$

Answers.

$a-1 = 3,795$	14,402025	$(a+1)^2 + b^2 + c^2 = 41,525492$	$= 6,444028$
$a+1 = 5,795$	33,582025	$(a-1)^2 + b^2 + c^2 = 22,345492$	$= 4,727101$
$b-1 = 0$	0	$(b+1)^2 + a^2 + c^2 = 33,925492$	$= 5,825418$
$b+1 = 2$	4	$(b-1)^2 + a^2 + c^2 = 29,935492$	$= 5,471224$
$c = 2,625046$	6,942467		
$a = 4,795$	22,992025		

$\log(a-1) = 0,579212$	$\log \sqrt{(a+1)^2 + b^2 + c^2} = 0,8091574$
$\log(a+1) = 0,763053$	$\log \sqrt{(a-1)^2 + b^2 + c^2} = 0,6745949$
$\log c = 0,420788$	$\log \sqrt{(b+1)^2 + a^2 + c^2} = 0,7653271$
$\log a = 0,680785$	$\log \sqrt{(b-1)^2 + a^2 + c^2} = 0,7380922$

$\frac{b}{c}$

0,420788
0,579212
1,000000
0,674595
0,325405
64° 41' 58"
1,1170107
1,19264
2812
1,1292183

longitudinal inclis

$\frac{b}{c}$

0,420788
0,763053
1,183841
0,809157
0,374684
67° 7' 11,7"
1,1693706
20362
567
1,1714635
1,1292183
2,3006818

$\frac{b}{c}$

0,420788
0,763053
0,657725 - 1
0,809157
0,848578 - 2
40° 2' 10,6"
0,0698432
5818
514
0,0704464
1,458431
2,127895

$\frac{b}{c}$

0,420788
0,579212
0,841576 - 1
0,674595
0,166981 - 1
8° 21' 22,3"
0,1396263
61087
1081
0,1458431

1,538850
1,187578
0,351272
0,175636
7,362147
4,727101
2,625046
6,444028
9,079074
0,867005
0,958042
0,908963 - 1
0,175626
0,084599
0,927265 - 2
362216
11-11 0,289581 - 1
0,194796

40,525492
33,582025
6,943467
14,402025
21,345492
1,607728
1,329206
0,278422
0,139211
0,757925
0,871808
988,6127 - 1
139211
0,025338
0,403772 - 2
262216
0,765988 - 2
11-11 0,058243

1,1292183
1,1714625
0,5524746
2,8541564
0,7567694
2,0973870 =

84
22

1,05
35
1,40

0,4082269
0,1947960
0,1527265
0,7567694

transversalis

0

0,2175984
 0,3010300

 0,5186284
 0,6155004

 0,9031280-1
 0,5063697

 0,3967583-1
 13° 59' 58 1/2"
 0,2268428
 171624
 2826

 0,2443388

0,2175984
 0,5063697

 0,7239681
 0,6155004

 0,1084677
 3010300

 0,8074277-1
 32° 41' 41"
 0,5585054
 119264
 1988

 0,5706306

$\frac{\pi}{2}$

1,5707963
 5706306

 2,1414269
 2443388

 1,8970881

1,155266
 1,012739

 0,142527
 0,1071264

0,827624
 0,435197

 0,392427
 0,196214

1,1412612
 0,2255698
 0,6249855

 1,9918105
 2443388

5,258985

 3,608549
 1,650436
 4,125727

 5,776163

6,817549

 3,608549
 3,209000
 4,125727

 7,224727

1,7444717
 582628

 2,331100

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0,720902
 0,1761679

 0,959263-1
 71264

 0,030527

0,828628
 0,865384

 0,968244
 196214

 0,164458

362216
 484684-2

 0,846900-2
 II-II

 = 0,070291

362216
 216055-1

 0,578271-1
 III-III = 0,378679

3.81

 240
 65

 180

 32.34
 102

 109

127

18,1476
 7,132585
 25,280185₉₁
 1,4027803
 0,7013902
 5,027941

18,1476
 3,132585
 21,280185₇₅
 1,3279753
 0,6639877
 4,613044
 22,280185

5,1076
 7,132585
 12,240185
 1,0877881
 0,5438941
 3,498598

5,1076
 2,132585
 8,240185₉
 0,9159070
 0,4579685
 2,870572

~~22,280185~~
 18,1476
 4,132585
 22,280185₉₄ (V)
 1,3479189
 0,6739595
 4,720190

5,1076
 4,132585
 9,240185 (V)
 0,9656807
 0,4828404
 3,039768

24,6276
 2,132585
 17,760185 (V)
 1,2494475
 0,6247238
 4,214288

1
 13,760185₉₀
 1,1786243
 0,5693122
 3,709473

$c(a-1) = 4$

18,565687
 0,05386281
 0,01106436
 0,04279845
 0,0757494

90,380310
 0,0

10486139
 4,1545413
 3,
 1,1545413
 1082229
 1,2627642

5,3090826
 1082229
 5,2008597

15,999991
 9,240185
 25,240176 = N

76,724279
 460,34564

0,0086891232

399

56,848900
 22,280185
 79,129085 = N
 373,50431
 2241,0258
 7,5298202
 0,00

~~46,560270~~
 541,967014
 1083,93403
 13,698301
 0,041883
 13,740184

10,6276
 17,760185
 28,387785

188,74814
 12,53034
 201,27848 = N
 848,24447
 2544,73341
 5,865114

805,86653
 4,0037382
 8,0074764
 5983947
 8,6058711

1,230273

$$0,153953 = 8\alpha_4 + 16\alpha_8$$

$$0,410091 = \frac{64}{3}\alpha_4 + \frac{512}{3}\alpha_8$$

$$0,01924413 = \alpha_4 + 2\alpha_8$$

$$0,01922302 = \alpha_4 + 8\alpha_8$$

$$0,00002111 = -6\alpha_8$$

6,706773

$$-3,418467 = 4\alpha_2 + 12\alpha_6$$

$$-2,235591 = \frac{8}{3}\alpha_2 + 72\alpha_6$$

$$-0,8546168 = \alpha_2 + 3\alpha_6$$

$$-0,8383466 = \alpha_2 + 27\alpha_6$$

$$0,0162702 = 24\alpha_6$$

$$\alpha_2 = -0,8566506$$

$$\alpha_4 = +0,01925117$$

$$\alpha_6 = +0,000677925$$

$$\alpha_8 = -0,000003518$$

0,8566506

0000141

0,8566647

905261

8161286

0,0285023

20338

805261

1,6222372

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$c-1 = 2,209$
 $a+1 = 4,209$
 $b-1 = 0$
 $b+1 = 2$
 $c = 1,650426$
 $a = 3,209$

$4,879681$
 $17,715681$
 0
 4
 $2,723939$
 $10,297681$

$(a^2+1)^2+b^2+c^2 = 21,439620$
 $(a-1)^2+b^2+c^2 = 8,603620$
 $(b+1)^2+a^2+c^2 = 17,021620$
 $(b-1)^2+a^2+c^2 = 13,021620$

$4,630294$
 $2,933193$
 $4,125727$
 $3,608549$

$\log(a-1) = 0,3441957$
 $\log(a+1) = 0,6241789$
 $\log c = 0,2175984$
 $\log a = 0,5063697$

$\log \sqrt{(a+1)^2+b^2+c^2} = 0,6656086$
 $\log \sqrt{(a-1)^2+b^2+c^2} = 0,4673406$
 $\log \sqrt{(b+1)^2+a^2+c^2} = 0,6155004$
 $\log \sqrt{(b-1)^2+a^2+c^2} = 0,5575025$

Konstantin

$0,2175984$
 3441957
 $0,5617941$
 4673406
 $0,0944535$
 $51^\circ 10' 55''$
 $0,8901179$
 29089
 2690
 $0,8932958$

$0,2175984$
 6241789
 $0,8417773$
 6656086
 $0,1761687$
 $56^\circ 18' 57''$
 $0,9772844$
 52360
 2763
 $0,9828967$

$0,2175984$
 $0,6241789$
 $0,5934195-1$
 6656086
 $0,9278109-2$
 $4^\circ 58' 26''$
 $0,0698462$
 145444
 1261
 $0,0844867$

$0,2175984$
 3441957
 $0,8734027-1$
 4673406
 $0,4060621-1$
 $14^\circ 17' 26''$
 $0,2443461$
 49451
 1261
 $0,2494173$

$1,272206$
 $0,769254$
 $0,502852$
 $0,251426$
 $4,583629$
 $2,922192$
 $1,650426$
 $4,630294$
 $6,280720$
 $0,661210$
 $0,798010$
 $0,863200-1$
 251426
 $0,114626$
 $362216-$
 $059283-1$
 $421499-1$
 $0,263936$

$17,715681$
 $20,439620$
 $17,715681$
 $2,723939$
 $4,879681$
 $7,603620$
 $1,310473$
 $0,881020$
 $0,429453$
 $0,214727$
 $0,594745$
 $0,750532$
 $0,844213$
 214727
 $0,058940$
 $0,362216$
 $770410-2$
 $0,132626-1$
 $0,135714$

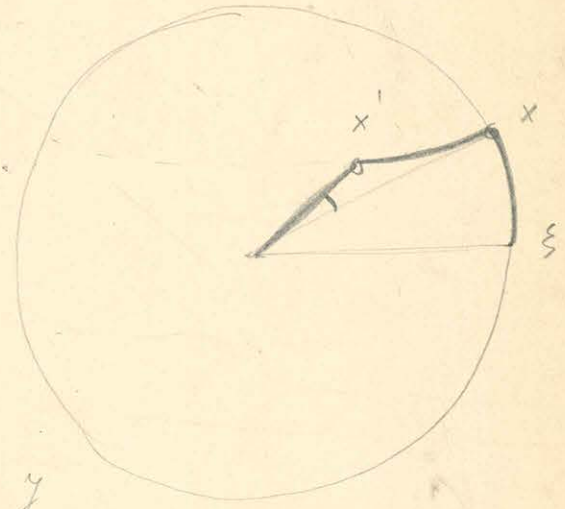
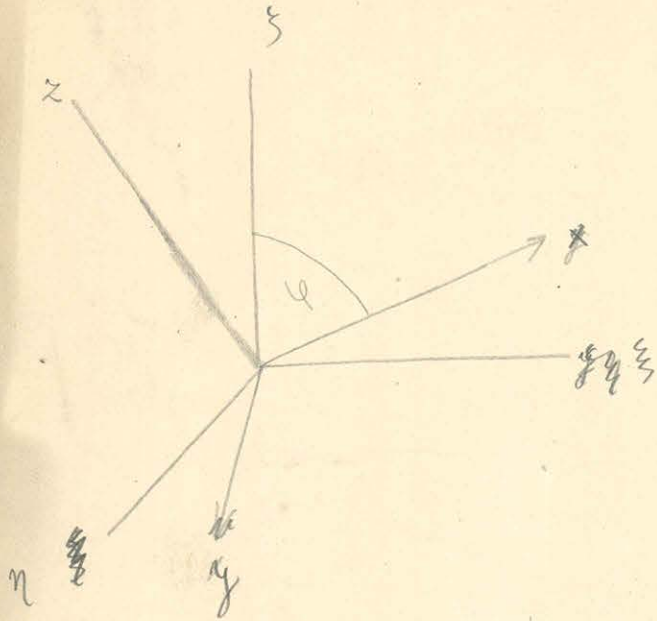
$0,8932958$
 $0,9828967$
 $0,5509628$
 $2,4271553$
 8435278
 $1,5836275$

$0,3556045$
 $0,2639360$
 $0,2239873$
 8435278

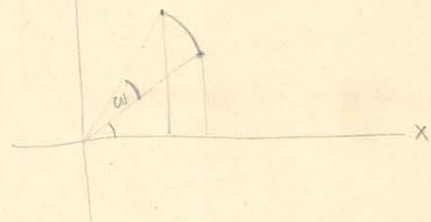
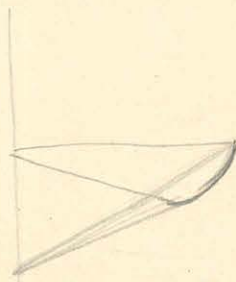
HÁGYAN
 TUDOMÁNYOS AKADÉMIA
 KÖNYVTÁRA



$\xi \eta \xi$



$\cos(\frac{\xi}{\xi} x) \frac{1}{4}$



$z = \omega_2$

$x = r \cos \alpha$

$y = r \cos \beta$

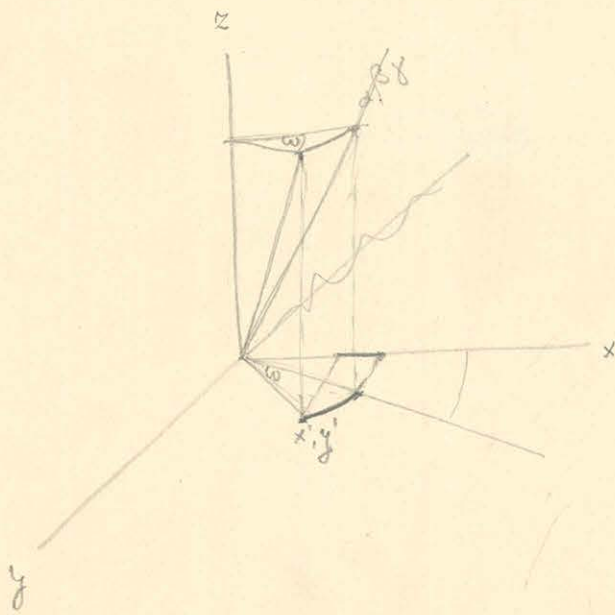
$z = r \cos \gamma$

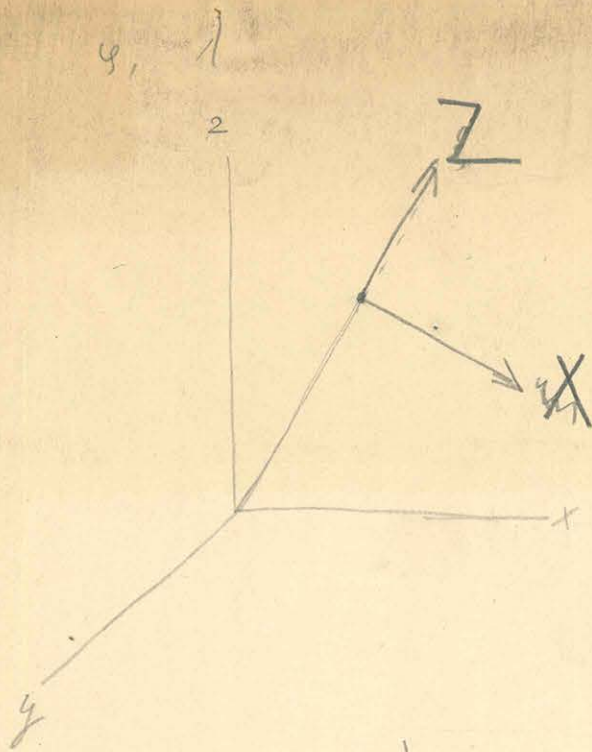
x, y, z

$x - x' = \dots$

$x' =$

sin





$$\cos(zZ) = \sin \varphi$$

$$\cos(xZ) = \cos \varphi \cos \delta$$

$$\cos(yZ) = \cos \varphi \sin \delta$$

$$\cos(zX) = \cos \varphi$$

$$\cos(xY) = \sin \varphi \sin \delta$$

$$\cos(yX) = \sin \varphi \cos \delta$$

$$\cos(\varphi zY) = 0$$

$$\cos(xY) = \sqrt{\frac{1}{2}(1 + \cos 2\varphi \cos 2\delta)}$$

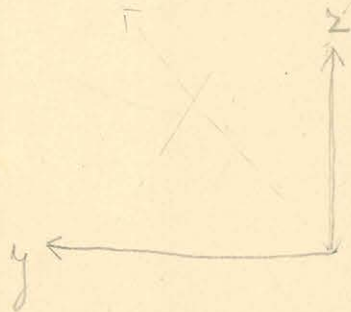
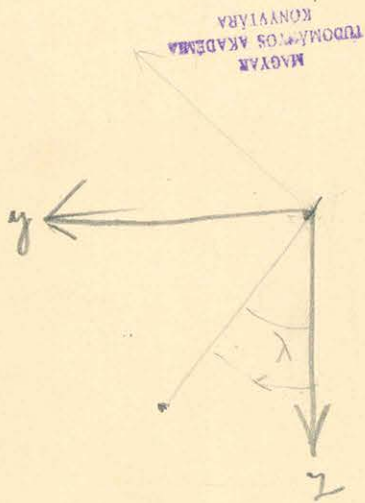
$$\cos(yY) = \sqrt{\frac{1}{2}(1 - \cos 2\varphi \cos 2\delta)}$$

$$\cos^2 \varphi \sin^2 \delta + \sin^2 \varphi \cos^2 \delta = 1 - x^2$$

$$\cos^2 \varphi - \cos^2 \varphi \cos^2 \delta + \sin^2 \varphi \cos^2 \delta = 1 - x^2$$

$$- \cos^2 \varphi \cos^2 \delta - \sin^2 \varphi + \sin^2 \varphi \cos^2 \delta$$

$$\cos^2 \varphi - \cos^2 \varphi \cos^2 \delta + \cos^2 \delta - \cos^2 \varphi \cos^2 \delta$$



МАГЯН
ТУДОМЛИК АКАДЕМИЯ
КОНЬЯЛЫРА

$$\arctan \frac{bc}{(a+b)\sqrt{a^2+b^2+c^2+l^2+2al}}$$

$$\frac{1}{1+X_0^2} \frac{V_0}{N_0^2} + \frac{2aA^2}{V_0}$$

$$\begin{array}{r} 207 \\ 16 \\ \hline 1218 \\ 205 \\ \hline 3248 \\ 1624 \end{array}$$

$$\arctan \frac{bc}{(a-b)\sqrt{a^2+b^2+c^2+l^2-2al}}$$

$$\frac{bc}{1+X_0^2} \frac{-V_0 + \frac{a^2}{V_0}}{N_0^2}$$

$$N_0 = aV_0$$

$$2h/s = \frac{2abc \sqrt{V_0 + \frac{a^2}{V_0}}}{(1+X_0^2)N_0^2}$$

$$-\frac{2abc}{S(1 + \frac{b^2c^2}{a^2S^2})a^2S^2}(S^2+a^2) = -\frac{2abc}{S(a^2S^2+b^2c^2)}(S^2+a^2)$$

$$+\frac{2abc}{S(b^2S^2+a^2c^2)}(S^2+b^2)$$

$$2 \frac{AB}{(C+S)S} - \frac{2Ah}{A^2+B^2}$$

$$\frac{2Ah}{(C+S)S} - \frac{2Ah}{C^2}$$

$$2 \frac{A}{C^2}$$

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$$8 \frac{AB}{(C+S)S} - 8 \frac{Ah}{A^2+B^2}$$

$$+ \frac{8Ac}{S(S+A)} - \frac{8Al}{A^2+C^2}$$

$$1 \cdot \underline{\underline{a^2+h^2+c^2+l^2(a-b)}}$$

$$d_8 = -0,0006748$$

$$d_{16} = 0,00002056$$

$$d_4 = 0,1660822$$

$$d_{12} = 0,0007441$$

$$\frac{114882}{8929}$$

Ms 5106/11

$$\begin{array}{r}
 10,629265 \\
 1,285805 \\
 \hline
 84214 \\
 \hline
 11,999284
 \end{array}$$

$$d_4 + 2d_{12} = 0,1680145$$

$$\begin{array}{r}
 d_4 + d_{12} = 0,1668263 \\
 7441 \\
 \hline
 1660822
 \end{array}$$

$$2d_{12} = 0,0014882$$

60033228

$$d_4 + 2d_8 + 2d_{12} + 4d_{16} = 0,156101$$

$$-d_4 + 2d_8 - 2d_{12} + 4d_{16} = -0,180528$$

$$d_4 - d_{12} = 0,165997$$

$$d_4 - \sqrt{2}d_8 + d_{12} = 0,175524$$

$$2d_4 + 6d_{12} = 0,326629$$

$$\begin{array}{r}
 d_4 + 2d_{12} = 0,1683145 \\
 165997 \\
 \hline
 0023175
 \end{array}$$

$$4d_{12} =$$

$$\begin{array}{r}
 165997 \\
 579 \\
 \hline
 166576
 \end{array}$$

$$0,00083686$$

$$d_{12} = 0,0005794$$

$$d_4 = 0,166576$$

$$d_8 = -0,00591759$$

$$d_{16} = 0,00009465$$

$$0,1671554$$

$$\begin{array}{r}
 0,0118050 \\
 0,0000786 \\
 \hline
 0,0122136
 \end{array}$$

$$4d_8 + 8d_{16} = -0,024427$$

$$\begin{array}{r}
 d_8 + 2d_{16} = -0,0061068 \\
 59175 \\
 \hline
 0,0001893
 \end{array}$$

$$0,00009465$$

$$\begin{array}{r}
 0,166576 \\
 1738 \\
 \hline
 168314 \\
 12214 \\
 \hline
 156100
 \end{array}$$

$$\begin{array}{r}
 64 \mid 8000 \\
 8 \mid 1000
 \end{array}$$

$$\begin{array}{r}
 64 \mid 1728 \\
 128 \\
 \hline
 4
 \end{array}$$

$$\begin{array}{r}
 10,660864 \\
 1,001200 \\
 \hline
 11,662064 \\
 3417446 \\
 \hline
 8,244621 \\
 \hline
 1,374105
 \end{array}$$

$$\begin{array}{r}
 3,029760 \\
 387686 \\
 \hline
 2417446
 \end{array}$$

$$\frac{1}{13} \mid 63$$

Fourier's method

□ *usage*

$a = b = c = 1$ $\varphi = 11\frac{1}{4}$

$\cos \varphi = 0,9807853$ $\sin \varphi = 0,1950903$

Quadrant

$1 + \cos = 1,9807853$	$3,9235104$
$1 - \cos = 0,0192147$	$0,0003692$
$1 + \sin = 1,1950903$	$1,4282408$
$1 - \sin = 0,8049097$	$0,6478796$

$\sqrt{(1+\cos)^2 + (1+\sin)^2} + 4 = 3,058063$
$\sqrt{(1+\cos)^2 + (1-\sin)^2} + 4 = 2,927694$
$\sqrt{(1-\cos)^2 + (1+\sin)^2} + 4 = 2,330650$
$\sqrt{(1-\cos)^2 + (1-\sin)^2} + 4 = 2,150750$

$\log(1 + \cos) = 0,2968373$	$\log \sqrt{(1+\cos)^2 + (1+\sin)^2} + 4 = 0,4854464$
$\log(1 - \cos) = 0,2836336 - 12$	$\log \sqrt{(1+\cos)^2 + (1-\sin)^2} + 4 = 0,4665257$
$\log(1 + \sin) = 0,0774006$	$\log \sqrt{(1-\cos)^2 + (1+\sin)^2} + 4 = 0,2674777$
$\log(1 - \sin) = 0,9057472 - 1$	$\log \sqrt{(1-\cos)^2 + (1-\sin)^2} + 4 = 0,2207999$

$0,301030$
$2836346 - 2$
$0,584664 - 2$
077401
$0,507263 - 2$
$367478 - 122$
$0,139785 - 2$
$0^{\circ}47' 25\frac{1}{2}''$
$0,0000000$
136717
1236
$0,0137953$
48
$0,0108001$

$0,301030$
296837
$0,597867$
077401
$0,520466$
485446
$0,035020$
$47^{\circ}18' 27''$
$0,8203047$
52300
1309
$0,8256716$
138901
$0,8394669$
$0,8394717$

$0,301030$
$283634 - 2$
$0,584664 - 2$
$905747 - 1$
$0,678917 - 2$
553800
$0,345117 - 2$
$1^{\circ}16' 54\frac{1}{2}''$
$0,0174533$
46542
266
$0,0221341$
72
$0,0221413$

$0,301030$
296837
$0,597867$
$905747 - 1$
$0,692120$
466526
$0,225594$
$59^{\circ}15' 13\frac{1}{2}''$
$1,0297443$
48633
654
$1,0341730$
221413
$1,0563071$
$1,0563143$

$0,301030$
077401
$0,278431$
296837
$0,081594$
485446
$0,596148 - 1$
$21^{\circ}32' 2''$
$0,3665191$
93084
97
$0,3758372$

$0,301030$
$905747 - 1$
$0,206777 - 4$
296837
$0,909940 - 1$
466526
$0,443414 - 1$
$15^{\circ}30' 52''$
$0,2617994$
87266
2521
$0,2707781$
3758372
$0,6466153$

$0,301030$
077401
$0,378431$
$283634 - 2$
$0,094797$
367478
$1,727319$
$88^{\circ}55' 56\frac{1}{2}''$
$1,5258897$
159989
1745
$1,5520631$
48
$1,5520679$

$0,301030$
$905747 - 2$
$0,206777 - 4$
$283634 - 2$
$1,923143$
333800
$1,589349$
$88^{\circ}31' 31''$
$1,5258897$
90175
1503
$1,5450576$
$1,5520631$
$1,5450671$
$1,5520679$
$3,0971358$

$$\begin{array}{r}
 -2\text{folony} \left\{ \begin{array}{l} +1,0032387 \\ 0,0067773 \\ 0,1043676 \\ 0,1041820 \\ \hline 1,2185656 \\ 8502318 \\ \hline 0,3683338 \end{array} \right. - 0,8502318 \\
 \hline
 = 0,7683338
 \end{array}$$

$$\begin{array}{r}
 +2\text{folony} \left\{ \begin{array}{l} 1,2808061 \\ 0,6471136 \\ 0,6022778 \\ 0,5273800 \\ \hline 3,0575475 \\ 595102 \\ \hline 2,9980373 \end{array} \right. - 0,0595102 \\
 \hline
 = 2,9980373
 \end{array}$$

$$\begin{array}{r}
 = 0,5848880 \\
 \hline
 0,3612564 \\
 \hline
 0,2236316
 \end{array}$$

$$\underline{\underline{+ 4/512 \quad 0,1118158.}}$$

$$\begin{array}{r}
 -2\text{folony} \left\{ \begin{array}{l} +1,0022445 \\ 0,0068036 \\ 0,1043676 \\ 0,1041080 \\ \hline 1,2185237 \\ 8502376 \\ \hline 0,3682861 \end{array} \right. - 0,8502376 \\
 \hline
 \end{array}$$

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$$\begin{array}{r}
 +2\text{folony} \left\{ \begin{array}{l} 1,2808061 \\ 0,6490188 \\ 0,6034393 \\ 0,5281260 \\ \hline 3,0613902 \\ 595105 \\ \hline 3,0018797 \end{array} \right. - 0,0595105 \\
 \hline
 \begin{array}{r}
 0,5856376 \\
 \hline
 0,3612096 \\
 \hline
 0,2244280 \\
 \hline
 0,1122140
 \end{array}
 \end{array}$$

$$\begin{array}{r}
 1,428610 \\
 \hline
 1,428241 \\
 000369 \\
 647880 \\
 \hline
 0,648249 \\
 \\
 0,154914 \\
 0,811742 - 1 \\
 \hline
 0,343172 \\
 0,171586 \\
 \\
 0,618672 \\
 0,636482 \\
 \hline
 0,982190 - 1 \\
 1,71586 \\
 \hline
 0,153776 \\
 \\
 362216 \\
 186889 - 1 \\
 \hline
 549105 - 1 \\
 0,352715 \\
 \hline
 0,354082
 \end{array}$$

$$\begin{array}{r}
 5,351751 \\
 \hline
 1,428241 \\
 3,923510 \\
 647880 \\
 \hline
 4,571390 \\
 \\
 0,1728496 \\
 0,660048 \\
 \hline
 0,068448 \\
 0,034224 \\
 \\
 0,692643 \\
 0,703984 \\
 \hline
 0,988659 - 1 \\
 624224 \\
 \hline
 0,022883 \\
 \\
 362216 \\
 359513 - 2 \\
 \hline
 721729 - 2 \\
 0,052690 \\
 \hline
 0,052690
 \end{array}$$

$$\begin{array}{r}
 4,571390 \\
 \hline
 3,923510 \\
 647880 \\
 000369 \\
 \hline
 0,648249 \\
 \\
 0,660048 \\
 0,811742 - 1 \\
 \hline
 0,848306 \\
 0,424153 \\
 \\
 0,618672 \\
 0,692643 \\
 \hline
 0,926029 - 1 \\
 424153 \\
 \hline
 0,350182 \\
 \\
 362216 \\
 544294 - 1 \\
 \hline
 906510 - 1 \\
 0,803958 \\
 \hline
 0,806325
 \end{array}$$

$$\begin{array}{r}
 5,351751 \\
 \hline
 3,923510 \\
 1,428241 \\
 000369 \\
 \hline
 1,428610 \\
 \\
 0,1728496 \\
 0,154914 \\
 \hline
 0,573582 \\
 0,286791 \\
 \\
 0,626482 \\
 0,703984 \\
 \hline
 0,932498 - 1 \\
 286791 \\
 \hline
 0,219289 \\
 \\
 362216 \\
 341017 - 1 \\
 \hline
 703233 - 1 \\
 0,503935 \\
 \hline
 0,504932
 \end{array}$$

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$$\begin{array}{r}
 0,724659 \\
 0,667255 \\
 \hline
 0,067404 \\
 0,033702 \\
 \\
 2,175195 \\
 2,155980 \\
 0,019215 \\
 2,329938 \\
 \hline
 2,349153 \\
 498 \\
 0,337299 \\
 0,370910 \\
 \hline
 0,966587 - 1 \\
 33702 \\
 \hline
 0,000289 \\
 \\
 0,460898 - 4 \\
 362216 \\
 \hline
 0,823114 - 4 \\
 0,000702 \\
 \hline
 0,000665
 \end{array}$$

$$\begin{array}{r}
 0,724659 \\
 \\
 0,033702 \\
 \\
 4,908479 \\
 2,927694 \\
 1,980785 \\
 3,058063 \\
 \hline
 5,038848 \\
 \\
 0,690947 \\
 0,702331 \\
 \hline
 0,988616 - 1 \\
 33702 \\
 \hline
 0,022318 \\
 \\
 0,348655 - 2 \\
 362216 \\
 \hline
 0,710871 - 2 \\
 0,051389 \\
 665 \\
 \hline
 0,052054
 \end{array}$$

$$\begin{array}{r}
 0,898918 \\
 0,602400 \\
 \hline
 0,296818 \\
 0,148409 \\
 \\
 2,960890 \\
 2,155980 \\
 0,804910 \\
 2,927694 \\
 \hline
 3,732604 \\
 \\
 0,471423 \\
 0,572011 \\
 \hline
 0,899412 - 1 \\
 148409 \\
 \hline
 0,647821 \\
 \\
 0,679619 - 2 \\
 362216 \\
 \hline
 0,041835 - 1 \\
 0,109953 \\
 \hline
 0,110112
 \end{array}$$

$$\begin{array}{r}
 0,148409 \\
 \\
 3,525028 \\
 2,329938 \\
 1,195090 \\
 3,058063 \\
 \hline
 4,253153 \\
 \\
 0,547262 \\
 0,628711 \\
 \hline
 0,918451 - 1 \\
 148409 \\
 \hline
 0,066860 \\
 \\
 0,825166 - 2 \\
 362216 \\
 \hline
 0,187382 - 1 \\
 951 \\
 0,153737 \\
 110112 \\
 \hline
 0,264063
 \end{array}$$

11-11

2,448202
 2,419799
 0,028403
0,197518
 0,225921

 0,388847
 0,352957-1
1,034890
 0,517445

5,774080
 2,419799
 3,354281
0,197518
 3,551799

 0,761483
 0,550449
0,211034
 0,105517

3,551799
 3,354281
 0,197518
0,028403
 0,225921

 0,550449
 0,352957-1
1,196492
 0,598246

5,774080
 3,354281
 2,419799
0,028403
 2,448202

 0,761483
 0,388847
0,372636
 0,186218

~~0,617816
 0,642713
0,975103-1
 517445
 0,492548~~

~~0,652711
 0,672750
0,974961-1
 105517
 0,085478~~

~~0,617816
~~0,642713~~
 0,652711
0,964165-1
 598246
 0,562351~~

~~0,642713
 0,672750
0,968963-1
 186218
 0,155281~~

~~362216
 692448-1
0,054664
 1,134133~~

~~362216
 931854-2
0,294070-1
 0,196820~~

~~362216
 750007-1
0,12223
 1,294861~~

~~362216
 191119-1
0,553335-1
 0,357548~~

11-11

~~0,744729
 0,807521
0,622992
 0,184528
 0,092264~~

~~0,866540
 0,605133
0,261467
 0,130704~~

~~2,316310
 2,147780
 0,168530
 2,392510
2,561040~~

~~4,336644
 2,505174
 1,831470
 2,717911
4,549381~~

~~2,592210
 2,147780
 0,444430
 2,505174
2,949604~~

~~3,948080
 2,392510
 1,555570
 2,717911
4,273481~~

~~0,264797
 0,408417
0,956380-1
 92264
 0,048644~~

~~0,627153
 0,657952
0,979201-1
 92264
 0,071965~~

~~0,413671
 0,469763
0,943908-1
 120704
 0,1074612~~

~~0,596286
 0,630782
0,965604-1
 120704
 0,096308~~

~~362216
 687029-2
0,049245-1
 0,112007~~

~~362216
 854092-2
0,216309-1
 0,164554
 112007
 0,276561~~

~~362216
 872809-2
0,235025-1
 0,171801
 112007
 0,393558~~

~~362216
 989662-2
0,345818-1
 0,221757~~

$$- 2f \cos \varphi \left\{ \begin{array}{r} +1,2510563 \\ 0,1917359 \\ 0,3604698 \\ 0,5531220 \\ \hline 2,3557840 \\ 7178260 \\ \hline 1,6379580 \end{array} \right. - 0,7178260 \left. \vphantom{\left\{ \right.} \right\} = 1,6379580$$

$$+ 2f \sin \varphi \left\{ \begin{array}{r} 1,3735346 \\ 0,5754748 \\ 0,5561910 \\ 0,7871160 \\ \hline 3,2929164 \\ 4425593 \\ \hline 2,8497571 \end{array} \right. - 0,4425593 = 2,8497571$$

~~$$= +2f \sin \varphi \left\{ \begin{array}{r} 1,5832401 \\ 1,3620977 \\ \hline 0,2211424 \end{array} \right\} = 2f \sin \varphi \cdot 0,2211424$$~~

~~$$2f \sin \varphi \cdot 0,1105712$$~~

$$= +2f \sin \varphi \left\{ \begin{array}{r} 1,5832401 \\ 1,3619123 \\ \hline 0,2213278 \end{array} \right.$$

$$= 4f \sin \varphi \cdot 0,1106639 \text{ nykörhossz}$$

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2d₄ =

~~$$9001152$$

$$0,000576 \cdot$$

$$16d_8 + 32d_{16} = 9,097740$$

$$d_8 + 2d_{16} = 0,0006106885$$

$$9006682875$$

$$d_4 + 3d_{12} + 5d_{20} = 0,1589745$$

$$d_4 - d_{12} + d_{20} = 0,1659970$$

$$d_4 + d_{12} - d_{20} = 0,15731716$$

$$d_4 = 0,16165705$$

$$4d_4 + 8d_{20} = 0,6662055$$

$$d_4 + 2d_{20} = 0,1665764$$

$$d_4 + 2d_{20} = 0,1616571$$

$$d_4 + 2d_{20} = 0,0099193$$

$$0,0024596$$

$$0,0122$$~~



tan φ =

a = b = c = 1

c = 2

φ = 33° 34'

Imminkon Jan. 31 1987

rendjelölés kezdés

cos φ = 0,8314696

sin φ = 0,5555702

latitudo Jan 21 21.44. 28. Sötét

Quadrant

$1 + \cos \varphi = 1,8314696$	$3,3542809$	$\sqrt{(1+\cos)^2 + (1+\sin)^2 + 4} = 2,717911$
$1 - \cos \varphi = 0,1685304$	$0,0284025$	$\sqrt{(1+\cos)^2 + (1-\sin)^2 + 4} = 2,505174$
$1 + \sin \varphi = 1,5555702$	$2,4197986$	$\sqrt{(1-\cos)^2 + (1+\sin)^2 + 4} = 2,392510$
$1 - \sin \varphi = 0,4444298$	$0,1975176$	$\sqrt{(1-\cos)^2 + (1-\sin)^2 + 4} = 2,147780$

$\log(1 + \cos) = 0,2627998$	$\log \sqrt{(1+\cos)^2 + (1+\sin)^2 + 4} = 0,4342353$
$\log(1 - \cos) = 0,2266782 - 1$	$\log \sqrt{(1+\cos)^2 + (1-\sin)^2 + 4} = 0,3988379$
$\log(1 + \sin) = 0,1918895$	$\log \sqrt{(1-\cos)^2 + (1+\sin)^2 + 4} = 0,2788537$
$\log(1 - \sin) = 0,6478032 - 1$	$\log \sqrt{(1-\cos)^2 + (1-\sin)^2 + 4} = 0,3219899$

0,201030 226678-1	0,301020 262800	0,201020 226678-1	0,201020 262800
0,527708-1 191890	0,563830 191890	0,527708-1 647803-1	0,563830 0,647803-1
0,335818-1 378854	0,371940 434235	0,879905-1 331990	0,916027 398838
0,956964-2 5° 10' 20"	0,937705-1 40° 54' 17"	0,547915-1 19° 26' 56"	0,517189 70° 5' 25"
0,0872665 29089 1454	0,6981287 157080 824	0,3216126 75621 2715	1,2740904 14544 1697
0,0903208 7139221	0,7139221	0,3394472 1,2757145	1,2757145
0,8042429		1,6151617	
0,201020 191890	0,201020 647803-1	0,201020 191890	0,201020 647803-1
0,492920 262800	0,948833-1 262800	0,492920 226678-1	0,948833-1 226678-1
0,230120 434235	0,686033-1 398838	1,266242 378854	0,722155 531990
0,795885-1 32° 0' 20"	0,287195-1 10° 57' 50 1/2"	0,887388 82° 36' 56"	0,390165 67° 50' 30 1/2"
0,5585054 9994	0,1745229 1658006 2448	1,4311700 104720 1745	1,1692706 145444 1624
0,5586048 1913583	0,1913583	22715	
0,7499631		1,4419135 1,1840774	1,1840774
		2,6259909	

MAGYAR TUDOMÁNYOS AKADÉMIA KÖNYVTÁRA

0,517445
 0,608067
 0,656992
0,951075-1
 517445
0,468520

362216
 670728-1
0,032944

1,078808

0,105517
 0,676516
 0,709808
0,966708-1
 105517
0,072225

362216
 858688-2
0,220904-1

0,166305

0,598246
 0,608067
 0,676516
0,931551-1
 598246
0,529797

362216
 724110-1
0,086326

1,219905

0,186318
 0,656992
 0,709808
0,947184-1
 186318
0,233502

262216
 125488-1
0,487704-1

0,207400

MAGYAR
 TUDOMÁNYOS AKADÉMIA
 KÖNYVTÁRA

0,092264
 2,224235
2,055705
 0,168530
 2,529331
2,707861

0,347182
 0,432627
0,914555-1
 92264
0,006819

362216
 832721-3
0,195937-2

0,015701

0,092264
 4,579524
2,748054
 1,831470
 3,126352
4,957822

0,660820
 0,695291
0,965529-1
 92264
0,057793

362216
 761875-2
0,124091-1

0,133073
 15701
0,248774

0,130704
 2,500125
2,055705
 0,444420
 2,748054
3,192484

0,297964
 0,504128
0,893836-1
 130704
0,024540

362216
 289875-2
0,752091-2

0,056506

0,120704
 4,094901
2,539221
 1,555570
 3,126352
4,681922

0,672242
 0,670424
0,941819-1
 120704
0,072523

262216
 860476-2
0,222692-1

0,166991
 56506
0,223497

2x 111111 = 0,297548

0,446994

$$\begin{array}{r}
 -2/5 \text{ km} \left\{ \begin{array}{l} 1,1365971 \\ 0,1818119 \\ 0,3045826 \\ 0,2975480 \\ \hline 1,9205396 \\ 7121549 \\ \hline 1,2083847 \end{array} \right. - 0,7121549
 \end{array}$$

$$\begin{array}{r}
 +2/5 \text{ km} \left\{ \begin{array}{l} 1,2317157 \\ 0,5427621 \\ 0,4781823 \\ 0,4469940 \\ \hline 2,6990541 \\ 4457862 \\ \hline 2,2552679 \end{array} \right. - 0,4457862
 \end{array}$$

$$\begin{array}{r}
 \cancel{1,2529897} \\
 \cancel{0,10047351} \\
 \hline
 0,2482246
 \end{array}$$

$$\underline{\underline{0,1241123}}$$

$$\begin{array}{r}
 1,2529824 \\
 1,0047351 \\
 \hline
 0,2482273 \\
 \underline{\underline{0,1241136}}
 \end{array}$$



$$a = b = c = 1 \quad c = 2 \quad \varphi = 75^\circ \frac{3}{4}$$

$$\cos \varphi = 0,8314696$$

$$\sin \varphi = 0,5555702$$

Quadrant.

$1 + \cos \varphi = 1,8314696$	3,3542809	$\log \sqrt{(1+\cos)^2 + (1+\sin)^2 + 4} = 0,4950380$
$1 - \cos \varphi = 0,1685304$	0,0284025	$\log \sqrt{(1+\cos)^2 + (1-\sin)^2 + 4} = 0,4390252$
$1 + \sin \varphi = 1,5555702$	2,4197986	$\log \sqrt{(1-\cos)^2 + (1+\sin)^2 + 4} = 0,4047193$
$1 - \sin \varphi = 0,4444298$	0,1975176	$\log \sqrt{(1-\cos)^2 + (1-\sin)^2 + 4} = 0,3129607$

$$\begin{aligned} \log(1+\cos) &= 0,2627998 \\ \log(1-\cos) &= 0,2266782 - 1 \\ \log(1+\sin) &= 0,1918895 \\ \log(1-\sin) &= 0,6478022 \end{aligned}$$

$$\begin{aligned} \log \sqrt{(1+\cos)^2 + (1+\sin)^2 + 4} &= 3,126352 \\ \log \sqrt{(1+\cos)^2 + (1-\sin)^2 + 4} &= 2,748054 \\ \log \sqrt{(1-\cos)^2 + (1+\sin)^2 + 4} &= 2,539301 \\ \log \sqrt{(1-\cos)^2 + (1-\sin)^2 + 4} &= 2,055705 \end{aligned}$$

0,335818 - 1
0,404719
0,931099 - 2
4° 52' 38"
0,0698732
151262
1842
0,0851236
6455291
0,7306627

0,371940
0,495038
0,876902 - 1
36° 59' 12"
0,6282185
171624
582
0,6455391

0,879905 - 1
0,312961
0,566944 - 1
20° 15' 2"
0,3490659
42625
97
0,3534389
1,2489625
1,6024014

0,916027
0,439025
0,477002
71° 33' 37"
1,2391838
95993
1794
1,2489625

MAGYAR TUDOMÁNYOS AKADEMIA KÖNYVTÁRA

0,230120
0,495038
0,735082 - 1
28° 31' 3"
0,4886922
90175
145
0,4977242
1748044
0,6725286

0,686033 - 1
0,439025
0,247008 - 1
10° 0' 56"
0,1745229
162897
2715
0,1748044

1,266242
0,404719
0,861523
82° 10' 4"
1,4211700
29089
494
1,4240983
1,1991420
2,6332704
2,6332413

0,722155
0,312961
0,409194
68° 42' 21"
1,1868239
122173
81018
1,1991430

679
6657599
04229

4829600
0'048142

0'240851

2-8252890
962290
0'220212-2

1-8411800
962290
0'019522-1

0'059916

8060206

0'104600

6606800
0'449015

55415
0'966475-1

0'976017-1

0'820947
0'802837
0'225281

0'554671
0'524146

0'661480
0'627798

0'695769

0'051422

0'128280

6606800 -
9859201
0'062510
0'6487529

~~494440~~
~~4326586~~
~~6451000~~
-1326586

0'102866
0'652246
0'755112

0'256566
0'173486
0'4489752

0'6187587
0'8829341

697569
16097754
0'565918

0'9859201
5485844
0'7880616

0'5585850

2152
110538
0'8726646

1909
127991
0'5235488

2702
22271
0'785982

1501
0'528141
0'525988

5008144
0'086146

0044400
0'774744-1

4508157
0'002260

0051011
0'776942-1

0'66986
0'45592
845098-1
0'201000

012710
0'187087
119411
0'201000

412710
0'218970
119411
0'201000

369786
0'146128
845098-1
0'201000

$987690 = 2(1-1) = 0.369786$

$3498110 = (2+1) = 0.113943$

$517210 = 1(1+1) = 0.412713$

$1-260580 = (2-1) = 0.845098-1$

$570342 = 2(1-1) = 2.343078$

$694 = (1+1) = 1.69$

$4059852 = 2(2+1) = 2.586504$

$640 = (1-1) = 0.49$

$3460110 = (1+1) = 0.113943$

$1-260580 = (2-1) = 0.845098-1$

~~$1-1 = 0$~~

$1+1 = 1.3$

~~$1-1 = 0.7$~~

Quadraturen

$$H = - \left\{ \sqrt{\frac{b}{a-l}} + \sqrt{\frac{b}{a+l}} \right\} + \frac{a+l}{l} \sqrt{\frac{b}{a}} - \frac{a-l}{l} \sqrt{\frac{b}{a}} + \frac{b}{l} \left\{ \sqrt{\frac{b}{c}} - \sqrt{\frac{b}{c}} \right\} + \frac{c}{l} \left\{ \sqrt{\frac{b}{c}} - \sqrt{\frac{b}{c}} \right\}$$

A. B C.

$$\frac{\partial H}{\partial l} = - \frac{\partial A}{\partial l} + \frac{a+l}{l} \frac{\partial}{\partial l} \sqrt{\frac{b}{a}} - \frac{a-l}{l} \frac{\partial}{\partial l} \sqrt{\frac{b}{a}} + \frac{b}{l} \frac{\partial B}{\partial l} + \frac{c}{l} \frac{\partial C}{\partial l}$$
$$= \frac{a}{l^2} \left\{ \sqrt{\frac{b}{c}} - \sqrt{\frac{b}{c}} \right\} - \frac{b}{l^2} B - \frac{c}{l^2} C$$

$$1-l = 0,2 \quad (1-l)^2 = 0,04002$$

$$1+l = 1,8 \quad (1+l)^2 = 3,24$$

$$\lg(1-l) = 0,201030-1$$

$$\lg(1+l) = 0,255273$$

$$\sqrt{5+(1+l)^2} = 2,870540$$

$$\sqrt{5+(1-l)^2} = 2,249994$$

$$\lg \sqrt{5+(1+l)^2} = 0,457964$$

$$\lg \sqrt{5+(1-l)^2} = 0,351215$$

0,201030
 301030-1
 0,602060-1
 351216

0,255273-1
 10° 6' 9"

0,1745229
 17452
 406

0,1763218

0,201030
 0,255273
 0,556303
 457964

0,098009
 57° 25' 56"

0,8901179
 72722
 2715

0,8976616
 1,763218
 1,0739832

0,201030
 0,255273
 0,045757
 457964

0,587793-1
 21° 9' 26"

0,3665191
 26180
 1745

0,3693116
 2,886232
 2,923279

0,201030
 0,301030-1
 1,000000
 251216

0,648784
 77° 20' 49"

1,3425035
 58178
 2376

1,2499589

0,627366
 9907290

0,017033
 0,610333
 0,305167

0,859725
 527586

0,606381
 1,809090
 0,253358
 0,126679

-1,0739834
 0,3374897
 -1,4114731

0,8309510
 0,7065113
 0,2885250

1,8040973
 4,14731
 3,926242

MAGYAR
 TUDOMÁNYOS AKADEMIA
 KÖNYVTÁRA

0,625775
 0,687577

0,938198-1
 205167
 0,243265

0,386258-1
 292216

0,748474-1

0,560369

0,627877
 0,687577
 0,940300-1
 305167
 0,245468

0,289953-1
 262216

0,752209-1
 0,565209

0,508462
 0,587771

0,920691-1
 126679
 0,047370

0,675503-2
 262216

0,237719-1

0,109074

511214
 0,587771
 0,923449-1
 126679
 0,050122

700028-2
 262216

0,062244-1
~~0,115412~~
 0,115410

0,7386202
 923279
 830951

0,3926242

0,8309510
 0,7065113
 0,2885250

1,8163180
 1,4114731

0,4648449
 3,926242

0,0122207
 0,0030736
 4,011044
 1,041780

5. d. d. d.

0,1627701

0,8309510
 0,7065113
 0,2885250
 1,8259873
 1,4114731
 0,4145142

Tanulmányok a magyar
 tudományok köréből

$\mu_{22} = 0.165997$

$$-4\alpha_4 + 8\alpha_8 - 12\alpha_{12} = -0.1722113$$

$$4\alpha_4 + 8\alpha_8 + 12\alpha_{12} = 0.624403$$

$$\frac{1}{6}64\alpha_4 + \frac{1}{6}512\alpha_8 + \frac{1}{6}1728\alpha_{12} = 1.393217$$

8,359302

$$-\alpha_4 + 2\alpha_8 - 3\alpha_{12} = -0.18052825$$

$$+\alpha_4 + 2\alpha_8 + 3\alpha_{12} = +0.15610075$$

$$+\alpha_4 + 8\alpha_8 + 27\alpha_{12} = 0.13061409$$

$$4\alpha_8 = -0.02442750$$

$$\alpha_4 = 0.16692016$$

$$\alpha_8 = -0.00610688$$

$$\alpha_{12} = +0.00046478$$

$$2\alpha_4 + 6\alpha_{12} = 0.33662900$$

$$2\alpha_4 + 30\alpha_{12} = 0.34778364$$

$$24\alpha_{12} = 0.01115464$$

$$\alpha_4 + 3\alpha_{12} = 0.16831450$$

$$\frac{1.39434}{1.6692016}$$

$$\frac{0.28671484}{610688}$$

$$\frac{0.66768064}{0.0557726}$$

$$\frac{0.67325800}{4885504}$$

$$0.6244030$$

$$\frac{1.6692016}{46478} = 8554991$$

2,1567505	2,3306595	2,927694	3,058063
0,0037999	0,8674777	0,4665257	0,4854464
0,6645998	0,7249544	0,9000513	0,9708929
			88
			9705
4,6515716	5,4319328	8,5713900	9,3517512
0,0026920	0,0026920	3,9235104	3,9235104
0,6478796	4,4282408	0,6478796	1,4282408
0,0192147	0,0192147	3,9235104	3,9235104
0,8049097	1,1950903	0,8049097	1,1950903

3,3542809
 2,4197986
 9,7740795
 68
 0,9900759
 45 0,4950380
 7 3,126352

3,3542809
 0,1975176
 7,5517985
 8008
 0,8780504
 0,4390252
 2,748054

~~776~~ 0,0284025
 2,4197986
 6,4482011
 7
 0,8094085
 0,4047193
 2,539331

0,0284025
 0,1975176
 4,2259204
 3
 0,6259213
 0,3129607
 2,055705

MAGYAR
 TUDOMÁNYOS AKADÉMIA
 KÖNYVTÁRA

$$d_4 + 8d_8 + 27d_{12} + 64d_{16} + 125d_{20} = 0,1305981$$

$$d_4 + 2d_8 + 3d_{12} + 4d_{16} + 5d_{20} = 0,1561008$$

$$-d_4 + 2d_8 - 3d_{12} + 4d_{16} - 5d_{20} = -0,1805282$$

$$+d_4 - d_{12} + d_{20} = 0,1659970$$

$$d_4 - 12d_8 + d_{12} - d_{20} = 0,1755237$$

$$+d_4 + 3d_{12} + 5d_{20} = 0,1683145$$

$$15d_4 + 24d_8 + 21d_{12} - 45d_{20} = 2,3670147$$

$$5d_4 + 8d_8 + 7d_{12} - 15d_{20} = 0,9890049$$

$$5,6568542d_4 - 8d_8 + 5,6568542d_{12} - 5,6568542d_{20} = 0,9929120$$

$$10,6568542d_4 + 12,6568542d_{12} - 20,6568542d_{20} = 1,8254496$$

$$d_4 + 1,1876727d_{12} - 1,9383633d_{20} = 0,1712935$$

$$-d_{12} + d_{20} = 0,1659970$$

$$+3d_{12} + 5d_{20} = 0,1683145$$

$$2,1876727d_{12} - 2,9383633d_{20} = 0,0052965$$

$$d_{12} + d_{20} = 0,00057938$$

$$d_{12} - 1,3431458d_{20} = 0,00264839$$

$$2,3431458d_{20} = -0,00206901$$

$$d_{20} = -0,000883045$$

$$d_{12} = +0,00136243$$

$$d_4 = 0,1682425$$

$$d_8 = -0,0039322$$

$$d_{16} = -0,00108705$$

$$4d_8 + 8d_{16} = 0,0244274$$

$$d_8 + 2d_{16} = -0,00610685$$

$$-0,0021747$$

$$+ 0,1682425$$

$$0,0367856$$

$$2050281$$

$$- 0,0312576$$

$$0,0695904$$

$$0,1103806$$

$$- 0,2114286$$

$$0,3366290$$

$$2,4976128$$

$$1305981$$

$$2,3670147$$

$$0,1683145$$

$$2,3670147$$

$$0,9890049$$

$$0,9929120$$

$$1,8254496$$

$$0,1712935$$

$$0,0023175$$

$$0,1683145$$

$$0,0052965$$

$$0,00057938$$

$$0,00264839$$

$$-0,00206901$$

$$-0,000883045$$

$$+0,00136243$$

$$0,1682425$$

$$-0,0039322$$

$$-0,00108705$$

$$0,0244274$$

$$-0,00610685$$

$$-0,0021747$$

$$0,1682425$$

$$0,0367856$$

$$2050281$$

$$-0,0312576$$

$$0,0695904$$

$$0,1103806$$

$$-0,2114286$$

4√ 24586565
5,6568542

0,06725218
172521900
00611024
0,05524189
181425500
00201923
~~0,05222266~~
0,05726112

~~0,0532227~~
~~0,2128908~~
9,22904448
00222004
~~0,22682444~~
~~0,00004125~~
0,22686569
0000000
0,2268649

0,047.
0,009
0,002

MAGYAR
TUDOMÁNYOS AKADÉMIA
KÖNYVTÁRA

3,701,017
281,080

4,082,097
241,000

2,701,014
1,911,802

9,613,126
002

350000

0,005,794
281,080

4,586,874
88

0,005,794
9,918,12

5,917,606
759,6
7625

MAGYAN
TUDOMKÉRTOS AKADÉMIA
KÖNYVTÁRA

16813169
28565368

117938242

161226

56768

3158368

5952082

339212

234767

25394969

7

1,138070
0,720768
0,464522
1
9,933420 - 2

13,7426408
2,9142136
1) 16,6568544

12,7426408
0,0857864
1) 13,8284272

25,6568544²⁸
22,8284272³³⁵
17,1715728⁵⁷
14,3431456⁷⁷

3
log = 1,4092024
1,3584769
1,2048001
1,1566444

127
18
146
136
9
145

5,2573592
2,9142136
8,1715728

5,2573592
0,0857864
5,3431456

76
4

30
12
2
44

50652594

47779011

41438309

27872344

76
4

127
18
145
7956
8101

MAGYAR
TUDOMÁNYOS AKADÉMIA
KÖNYVTÁRA

0,8
572
8
4096

0,64

0,00787008
0,00029913

1,007,57695

8402119

1,6864238
584966

1,6279272
1,628309

- 0,05598300
- 0,00040362

0,00242172
00009184

0,05849656

0,01402200
00003625

0,01099575

0,262144
0,00001148
0,00009184

1,6864238
0559830
0000918

1,7424986
24217

1,7400769
29

40

1,627927
1740077

2,368004

1,570796
764683

2,335479
1403055

1,932424
966212

6,965760

- 0,8707200 = $d_2 + 27d_6$

6,965760

1,321905

- 0,8940040 = $d_2 + 3d_6$
29105

8,969145

24d6 = 0,0232840
216
168
168

40
160

0,000,97027

0,163106 = $8d_4 + 16d_8$
0,165238 = $8d_4 + 64d_8$

0,062132 = $48d_8$

48 / 0,002132 = 0,00004442

192

212
192

200
80

0,02038825
8882

0,02029943

894289
69
4

169518
2223
4818500
0058164
8002180'0

874114
8258
484
824784
82524
7552
90812008

7064558
8873694
11938242

7064528
874114
11938242

180
172
160
144
125
112
96
81
66
51
36
21
6

8969121
29081
8940040

21 / 0'022265
0'00096937

$0'023265 = 24 \times 6$

$-0'894040 = 40 \times 6$

$-0'8707388 = 27 \times 6$

6'965910

0'8940040
2908
8969121

0'02038825
8804
12000021

140
132
126
114
48 / 0'0221124
0'00004403

$9'0021134 = 48 \times 8$

$0'1652194 = 8 \times 4 + 64 \times 8$

$0'1631060 = 8 \times 4 + 16 \times 8$

1'021755
0'1652194
1'217552

0'1'0

0'1'0

0'1'0
409
45

-2/5 lany { +2,8701875
 0,0696740
 0,2104450
 0,5421708

 3,9924773
 8366602

 3,1558171

-0,8366602

-2/5 lany 3,1558171

3,1558171
 6163202

 2,5394969

+2/5 lany { 1,1708407
 0,0993529
 0,4007723
 0,3101031

 1,9810690
 1,3647488

 0,6163202

-1,2647488

+2/5 lany 0,6163202

1,79569550

0,8978478

0,7712992
 9099177

 1,6812169

1,4109145
 1,4456222

 2,8565367

0,0785126
 102210

 0,1807236

2662694
 495674

 0,3158368

0,4942645
 1008427

 0,5951072

0,61125
 872542

 0,1033677

MAGYAR
 TUDOMÁNYOS AKADÉMIA
 KÖNYVTÁRA

0,8969121

0009694

 0,8978815

16,250007

16249968

0,6054265

22,25

1825002

6

2224999,47

 3

$t=1 \quad a=1 \quad b=0 \quad c=0 \quad S_1^x = \sqrt{18} \quad S_2^x = \sqrt{22}$

31
93

$9 \left(\frac{1}{\sqrt{18}(9)} - \frac{1}{\sqrt{22}(13)} \right)$

38,18376

0,02618925
0,01640604

0,00978921
0,98810289

60,97546

3818376

$\frac{3}{(198+36)\sqrt{22}} \left(-3 + 2 \frac{961}{234} + \frac{9}{22} \right)$

1,798246

2241,78

МАГЯН
ТУДОМАНСКО АКАДЕМИ
КОМПИЈАРА

1922
224
5,213675
409091

5,622766
365,8528

224 | 900 |
1922

1872

0,0203883

234 | 1922 | 821
1872

500
468

380
1260

1,466676

$0,02038825 = d_4 + 2 d_8$

$0,02291681 = d_4 + 8 d_8$

$6 d_8 = 0,0252856$

$0,00042143$

$d_8 = 0,00042143$
 $d_4 = 0,01954539$

$d_6 = 0,00172296$

$d_2 = -0,8994732$

22
44
31
23

$d_4 = 6,821226$

0,02038825
84286

0,01954539

$-0,894004 = d_2 + 2 d_6$

$-0,852653 = d_2 + 27 d_6$

$0,041351 = 24 d_6$

0,894004
5169

0,899473

1,798546

~~0,00244598~~
19

0,00337144
0,07818160
0,01037776

0,09189080
1,7998546

1,7079538

1,798246
078182

3571

1,798346
091891

1,706455

1,879899
1,8258

1,869561

~~1,345281~~
 2,182190
 0,762542

 2,944732
 2,095185

 0,849547
 1,699094

0,584160
 1,285362
 0,225663

 2,095185

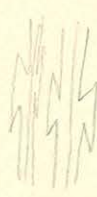
0,584160
 0,428454
 225663

 1,238277

~~2,0951~~

2,944732
 1,238277

 1,706455



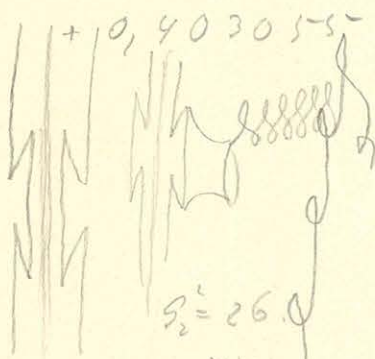
-0,402055 1,529366
 0,371625
 0,171625

 2,272616
 402055

 1,869561

2,182190
 0,527311

 1,654879
 8274895



+ 1,570796
 764683

 2,335479
 402055

 1,932424
 0,966212

$S_1 = 14$

$S_2 = 26$

$3 \left(\frac{1}{\sqrt{14}(5)} + \frac{1}{\sqrt{26} \cdot 17} \right)$

0,05045221
 0,01157624

 0,04191597
 0,12574791

9854

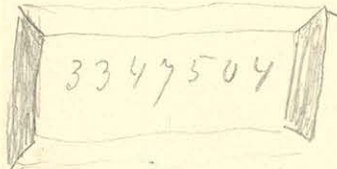
$\frac{1}{(14+36)\sqrt{14}} \left(-3 + 2 \frac{225}{14+36} + \frac{1}{14} \right)$

4,1870800
 8668004
 21
 17

 189
 54

75,07142857
 187,0800 0,0

12307692



2

836876

$\frac{2}{(26+144)\sqrt{26}} \left[-3 + 2 \frac{729}{170} + \frac{1}{26} \right]$

1458

 170
 5,5264700
 0,0384615

 5,6149318
 11,2298636

1557866,8004
 136
 98

 100
 0,01

996867798

206 76 194
 1022022

1,783321 1,772433
 1,877612

by $\sqrt{1} = 0,4$
 $\sqrt{1} = 4,582575$

21000039

$$\frac{x}{\sqrt{x^2+2^2}} - \frac{x}{(y+5)5}$$

$$\frac{x(y5 + 5^2 - x^2 + 2^2)}{(y+5)5(x^2+2^2)} - \frac{y(5+7)}{5(x^2+2^2)}$$

$$\frac{1}{5} \left(\frac{4}{\sqrt{21}} + \frac{2}{3} \right)$$

0,87287074
 66666667
 1,53953841

$\frac{20}{8}$
 2,5

0,30790768
 124878
 - 0,183029 0,20000000
 0,07692308
 0,12307692

0,297940
 0,198970

$$-\frac{2ab}{(b^2+c^2)\sqrt{a^2+b^2+c^2}} \quad 0,80$$

0,602060
 0,746835
 0,855285 -1
 198970

$$\frac{3}{\sqrt{14}} \left(-\frac{1}{5} + \frac{1}{13} \right)$$

0,30790768
 1247885
 1831192

0,054295 - 0,8017832 : 0,12207692

0,728959 -2
 362216

0,09868101
 0,19736202

$$\sqrt{17} = \frac{4,123105}{0,6152245}$$

0,096488 -1
 0,096175

$$\frac{3}{13} \left(\frac{2}{\sqrt{17}} \right)$$

52,600065
 -0,11190952

0,150515

MAGYAR
 IUDOMÁTIKUS AKADÉMIA
 KÖNYVTÁRA

0,879909
 0,852669
 0,967240 -1
 150515
 0,1117755

$$\frac{3+\sqrt{13}}{2+\sqrt{17}}$$

0,5569715
 $\sqrt{13} = 3,605550$

600202
 172992
 1774195

0,070980 -1
 362216
 0,430196

656542
 42817
 705360

0,271241
 111935
 0,159202

$$4d_{20}(1+k_1+k_2) + 12d_6 = 3,274298$$

$$4d_{20}(1+\frac{1}{4}k_1+\frac{1}{16}k_2) + \frac{12}{16}d_6 = 3,356903$$

3247504

1,00803404
 353242
 400450162
 1,01156646

$$1+k_1+k_2 \overline{=} 0,0035324230 = 1,00803404$$

$$1+\frac{1}{4}k_1+\frac{1}{16}k_2 \overline{=} 0,0002207764 = 1,00280776$$

1 280776
 220776
 0

3,5847605

0,00

3,286222905

118260
 3,2743969
 0,01156646
 13027
 3,01229673

779207
 450162
 1229469

$$k_1 + \frac{1}{4}k_2 = 0,01034792$$

$$\frac{3}{4}k_2 = -0,00584630$$

$$0,02337920$$

$$0,00779307$$

$$\left\{ \begin{array}{l} k_1 = -0,00779307 \\ k_2 = 0,01229469 \end{array} \right.$$

$$k_1+k_2 = 0,01156646$$

$$k_1+\frac{1}{4}k_2 = 0,01211416$$

$$\frac{3}{4}k_2 = -0,00054770$$

$$0,00219080$$

3,2625721

118260

3,2743991

0,00450162

$$k_1 = 0,01229673$$

$$k_2 = -0,00073027$$

$$-0,173992 =$$

$$-0,02174900 = d_4' + d_4'' + 0,000008760000$$

$$-0,00547713 = d_4' + \frac{1}{32}d_4'' + 0,00000136875$$

$$-0,02190852 = d_4' + \frac{1}{8}d_4'' + 0,00000547500$$

$$-0,02191399 = d_4' + \frac{1}{8}d_4''$$

$$-0,02183666 = d_4' + d_4''$$

$$0,02192505$$

$$\frac{7}{8}d_4'' = 0,00007739$$

$$0,00061912$$

$$d_4'' = 0,00008845$$

$$d_4' = -0,02192505$$

$$-0,02183660$$

876

$$0,02174900$$

MAGYAR
 TUDOMÁNYOS AKADÉMIA
 KÖNYVTÁRA

$$\begin{array}{r} 11793826 \\ 87320 \\ \hline 11710528 \\ 11706496 \end{array}$$

$$\begin{array}{r} 0,0871952 \\ 58170 \\ 3576 \\ \hline 873698 \end{array}$$

2029887

$$\begin{array}{r} 0,1620104 \\ 10007155 \\ \hline 1630259 \end{array}$$

$$\begin{array}{r} 1,792826 \\ 87370 \\ \hline 1,706456 \end{array}$$

$$\begin{array}{r} 1,793826 \\ 87370 \\ \hline 1,706456 \end{array}$$

$$\begin{array}{r} 169312 \\ 16737 \\ \hline 178518 \end{array}$$

$$\begin{array}{r} 178518 \\ 11793826 \\ \hline 1193826 \end{array}$$

$$816965880 = 870725$$

$$\left. \begin{array}{l} x_2 = 0,896913 \\ x_6 = 0,00096954 \\ x_4 = 0,020202881 \\ x_8 = 0,0000472 \end{array} \right\}$$

$$\begin{array}{r} 0,020202881 \\ 8944 \\ \hline 0,020202881 \end{array}$$

$$\begin{array}{r} 0,020202881 \\ 8944 \\ \hline 0,020202881 \end{array}$$

MAGYAR
TUDOMÁNYOS AKADÉMIA
KÖNYVTÁRA

$$\begin{array}{r} 0,020202881 \\ 8944 \\ \hline 0,020202881 \end{array}$$

$$\begin{array}{r} 6,07122817 \\ 1870820 \\ \hline 0,022413128 \end{array}$$

$$1,391936 = 64A_4 + 128A_8$$

$$1,034604 = 64A_4 + 512A_8$$

$$0,357002 = -384A_8$$

$$A_8 = -0,00092055$$

$$A_4 = 0,0226101$$

$$\begin{array}{r} 0,552072 - 1 \\ 2,584201 \\ \hline 0,968741 - 4 \\ 2,107210 \\ \hline 0,075951 - \end{array}$$

$$\begin{array}{r} 1,391936 \\ 0,119111 \\ \hline 1,511047 \\ 0,179278 \\ 1,806180 \\ \hline 0,273098 - 2 \end{array}$$

$$-6,748796 = 8A_2 + 24A_6$$

$$-6,400704 = 8A_2 + 216A_6$$

$$+ 0,348092 = 192A_6$$

$$A_6 = 0,00181298$$

$$0,00$$

$$A_2 =$$

$$\begin{array}{r} 0,541694 - 1 \\ 2,282201 \\ \hline 0,258393 - 2 \\ 1,280271 \\ \hline 0,638604 - 2 \end{array}$$

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KÖNYVTÁRA

$$f(x+h, y+k) = f(x, y) + h f'_x(x, y) + k f'_y(x, y) + \dots$$

$$\begin{array}{r} -6,748796 \\ 0,042512 \\ \hline -6,792308 \\ 0,849038 \end{array}$$

$$\begin{array}{r} -0,849038 \\ 0,01813 \\ \hline 0,850851 \\ 84752 \end{array}$$

$$-1,774295 = 2d_2 - 4d_4$$

$$-1,600202 = 2d_2 + 4d_4$$

$$\begin{array}{r} 3,074298 \\ 0,843599 \\ \hline 1,687200 \\ 0,086999 \\ \hline 0,021749 \end{array}$$

$$\begin{array}{r} 1,672752 \\ 0,836871 \end{array}$$

$$\sqrt{\frac{b}{c-1}} + \sqrt{\frac{b}{a+1}} = 0,312768 \quad 21464$$

192388

$$\left[\quad \right] = 2,086963$$

7612

$$\sqrt{\frac{a+1}{b}} + \sqrt{\frac{a-1}{c}} = 2,199807$$

1425
11400

$$\frac{2}{3} \text{ lbc } \left[\quad \right] = 4 \cdot \left[\frac{1}{\sqrt{13} \cdot 9} - \frac{1}{\sqrt{17} \cdot 13} \right] = 0,0486400$$

$$\frac{1^2}{6} \text{ ch. } \text{ l}_y = 0,0158706$$

121929

0,0486400
0,0158706
0,3478272
1,0999025

0,104256

1,5122413
1,208512
1,303729

675325

338268 $\frac{80946}{0219}$
28488

3382683

417857 2,617317

192388

92388

$$000000'0 + 961100'0 + 021900'0 - 884880'0 - 026269'1$$

$$1000000'0 + 011000'0 - 190110'0 - 002024'0$$

2018ch
461
1624ch
10011
002024

$$\frac{10}{10} + \frac{9}{9} + \frac{7}{1} + \frac{7}{2}$$

500216
10211
422024

025118
04
0201
094948

0,215295
140722
0,256117

0,964179 -2 0,458946
217252
0,281431 -1

~~0,278578~~
0,278759
790508
0,169267

0,592716
0,210417 -2
0,904133 -2

0,346605 -1
592716
0,940221

0,772622 -1
252716
0,880606

0,790508 -1
0,552772 -1
0,242810 -1
0,140722
2270410
0,471610 -1
5527510

942840
0,485246
0,970492
0,34313
679
8579
525724

0,542670
1,085246
1,217156
4
224612
291422
525724

0,625557
1,251113
1,782842
12,74262
8579
12,74262
0,657522
1,315064
2,065685
4
2,91422
13,74263

Utolony { 2,270475 - 1,476614
0,191175
0,080192
~~0,016092~~
0,4626102
3,457934 2,604444
1476955 1,476614
1,980979 1,527489
11,527830

Utolin { 0,871608 - 1,202775
0,211000
0,372528
0,452490
1,909626 0,040281
1880281
0,965615
0,184070
0,649685
1,232775
0,676861

MAGYAR
TUDOMÁNYOS AKADEMIÁ
KÖNYVTÁRA

1,411513
4,206521
6,842571
5,762471
8,229550

408504
817008
1,527820
1,69505
847525
1,66861
2,3272
0,582820 -1
820500
0,413240 -1
= 50
20884
20884

0.043320 α_4 169308533
 .00297369 α_6 846542
 .0001780 α_8
 .0000695 α_{10}

 -0.0465412
 8465427

 .8000015
 8001

 0,043320
 0,00297369
 178
 69

 0,046541
 846542

 0,8000015

0.043320
 .00293619
 .0001780
 .0000070

 .0466249 .0464349
 8465427 8465427

 0.7999015 .8001078
 .8001015

0,00297369
 1,00006950

 0,00304319
 1,84654264

 0,84349948

0,043320
 0,002936
 178
 7

 0,046441
 8465427

 8,418976

8465427
 46441

 8001087

0,00392050

 0,000980125

0,010830
 000163

 10990

0,4222713
 10990

 0,412278
 332

195467
 977325
 195746
 246 = 97870

0,000002790
 0000001395

MAGYAR
 TUDOMÁNYOS AKADÉMIA
 KÖNYVTÁRA

4232713
 10830

 424101
 163

 422938

4122780
 422938
 846216
 846128

$$\frac{1}{6}(8d_2 + 64d_4 + 216d_6 + 512d_8 + 1000d_{10} + 1728d_{12} + 2744d_{14})$$

67711920
~~0,6771192~~
 0,1410020
 0,2507328x
~~0,3443320~~

- 1,3767940x

0,1810296

0,1721344x

0,388320y

2,1182889

0,274398

0,8435695

8455650

9829

0,8465482

2d6 = -00019658

d6 = -0,0009829

d2 = 0,8465482

d4 = -0,021660

d8 = -0,0000445

899
 1,0688590

7,1629318

2,118288y

0,446429

8407736

0,043320

$$8d4 + 16d8 = -0,173992$$

$$d4 + 2d8 = 0,021749$$

21660
 0,000089

- 90430248
 90025143
 90018448
~~90008706~~
 90009906
 0,04874515
 58706
 478745

+ 0,8463994
 0,0007050
 0,8471044
 48745
 8706
 0,8479750
 478745
 8001005
 1602010
 16002010

1185118
 6286
 0,8465482

1621336
 12220
 21206
 -1386240x

0010020
 1002949
 1178
 0,046447
 846548
 46447
 800101
 5151656
 1621000
 67720856

$$\text{Lopt. } d = -\frac{1}{6} d_2$$

$$\text{Lopt} = \left(-\frac{1}{6} 8 d_2 - \frac{1}{6} 64 d_4 - \frac{1}{6} 216 d_6 - \frac{1}{6} 512 d_8 - \frac{1}{6} 1000 d_{10} \right)$$

$$\text{Lopt.} \left(+\frac{1}{6} 8 d_2 - \frac{1}{6} 64 d_4 + \frac{1}{6} 216 d_6 - \frac{1}{6} 512 d_8 + \frac{1}{6} 1000 d_{10} \right)$$

$$-6,7723414 + 1,386240 + 0,2114057 + 0,0227840 + 0,0012950$$

6,7723414
1,386240
22784

8,181365
212801
7,968564

Lopt. = 1,328094

2114057
13950
2128007

1,386240
0,211406
0,022784
0,001295

1,621825
6,772341
5,150516

0,858419

МАСТАН
ТУДОМ-ТОС АКАДЕМИЯ
КОМПИЛРА

6,77160
1,5972
5,1744
86240

1,39200
2052
1,5972

$$d_{12} = 0,0001457$$

$$d_4 = -0,0215724$$

$$d_8 = -0,0003362$$

$$8d_4 + 16d_8 + 24d_{12} = -0,173992$$

$$2d_4$$

$$-2d_{12} = -0,042215$$

$$d_4$$

$$+\frac{1}{5}d_{12} = -0,021464$$

0,0216575
21464

00001935

725
1004

821
810

$$\frac{4}{2}d_{12} = 0,0001935$$

0,0216575
1451

0,0215124

$$d_4 + 2d_8 + 3d_{12} = -0,021749$$

0,021512
-0,0002270
4353

0,0006723

$$V_{90} = -\frac{a_2}{2} + \frac{a_4}{4} - \frac{a_6}{6} + \frac{a_8}{8} - \frac{a_{10}}{10} + \frac{a_{12}}{12} - \frac{a_{14}}{14}$$

$$V_{75} = 0 - \frac{a_4}{4} + 0 + \frac{a_8}{8} - 0 - \frac{a_{12}}{12} + 0$$

$$V_0 = \frac{a_2}{2} + \frac{a_4}{4} + \frac{a_6}{6} + \frac{a_8}{8} + \frac{a_{10}}{10} + \frac{a_{12}}{12} + \frac{a_{14}}{14}$$

$$V = \frac{a_2}{2} \cos 2\varphi + \frac{a_4}{4} \cos 4\varphi + \frac{a_6}{6} \cos 6\varphi + \frac{a_8}{8} \cos 8\varphi + \frac{a_{10}}{10} \cos 10\varphi + \frac{a_{12}}{12} \cos 12\varphi + \frac{a_{14}}{14} \cos 14\varphi$$

3070300
150
845561
7444
00157
191
677
84556180
677
49856
08229
41649
330

0,3070299957
0,1505149978
480,222
348756
1,4142

1505751
3010002

$$\frac{(a-x)(b-x)^2 + (a-x)^2(b-x)}{(a-x)(b-x)}$$

169308593
84654267
99122
99732
0,00001490
1000000613

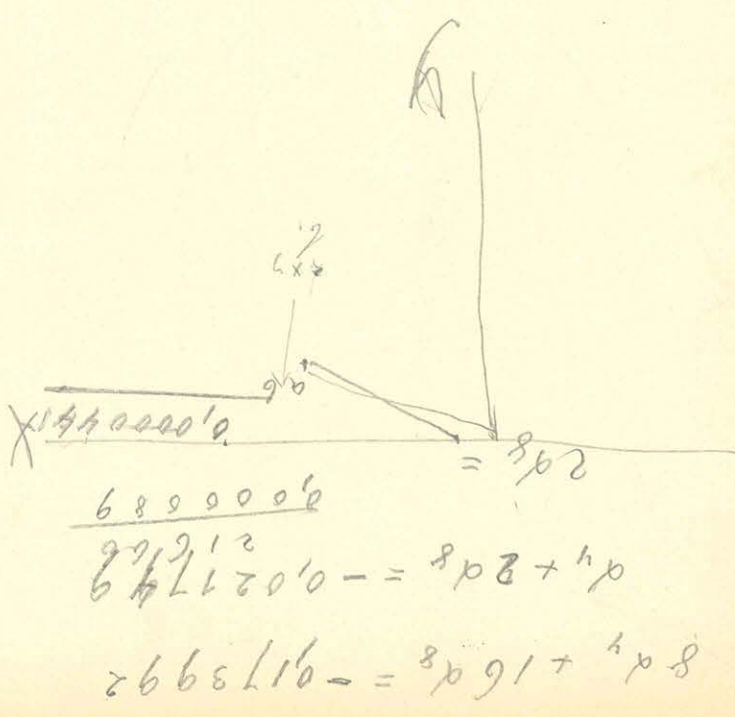
$x = \text{rms}$
 $y = \text{rms}$
 $\frac{353}{353}$
 $\frac{180}{353}$

$$\frac{(a-x)(b-x)^2 + (a-x)^2(b-x)}{(a-x)(b-x)} + \frac{(a-x)(b-x)^2 + (a-x)^2(b-x)}{(a-x)(b-x)}$$

9,004620509,00195467

0,00198246

$2a_4 = 0,043320$
 $2a_{10} = 2779$
 21660
 1389



$1,2965736$ $0,504229$
 $3,0495216$ $1,008458$

 $0,2657967$
 $0,3904811$ $0,0869774$
 $0,1739548$

$$\frac{1}{2} d_2 - d_4 + \frac{1}{2} d_6 - \frac{1}{2} d_{10}$$

$0,846460$
 1060

 $0,845400$

$0,021464$
 597788

 $0,619252$

 623262

$6,765366$

$0,92184210$

35165218

МАСТАН
 ТУДОМАҚАТОС АКАДЕМИЯ
 ҚОНАҚАНА

$5,234634$ $2,7208734$ $0,7132669$ 28540 <hr/> 782741261 268056 4666	$6,765366$ $3,5165146$ $0,8037068$ 5418 <hr/> $79,811650$ / 2 1596 540
--	--

$5,234634$ $68,768182$ $20,87129$ 64222 <hr/> 17807 87882 <hr/> $9,05246$ 12714	$6,765366$ $88,87764$ $22,012667$ 02015 <hr/> 10652 $0,149877$ $152460 / 41$ $5085459 / 10652 / 0,07$ 60246
--	---

$2,847760$

 $1,1274877$
 01
 $0,2599752$
 8593

 5171159 22
 139

$0,152240$
 $0,058166455$
 $0,01765264$
 4551

 $485 / 198,5$ 411
 1940
 450

$0,152240$
 $0,0450057$
 $0,0114506$
 3451

 $485 / 105,5$ / 22
 970
 1850

$2,847760$
 61
 ~~$1,1274877$~~
 $1,14319091$
 $0,2752696$
 2115

 $55,01581$ / 2
 11066
 4750

 $20 / 241$

 $0,3852854$
 1996

 $577 / 1858 / 32$
 1679
 1876

+ 2,4944520
 0,3191268
 + 0,2284410
 1,0084580
 + 4,0504778
 2321296

- 0,2321296

+ 3,8183482 $\cos \varphi = 1,4612169$ -

1,2965736

30495216

+ 0,8991060
~~0,1088485~~
 0,1704492
 0,0108849
 1739548

- 1,0220128

1,2543949
 1,0220128
 0,2323821 $\sin \varphi =$

1,4612169
 0,21409317
 1,2465237
 0,6232619

0,504229
 1,008458

19,142862

576245
 47017

0,2657967
 0,2904811

11442544
 2701214
 19142858 10324

0,023008
 0,0016
 0,086977
 173954

86077
 173954

11,442544
 5794
 15448338
 27

20495216
 0,2904423

6,850248
 21701214
 14,551662

6,850248
 5794
 10,856142

568885
 284778

1,058221

1,2965736

529261

825713
 417856

0,762997-4
 0,8814985

2,4944520
 0,3191268
 0,2284410
~~0,68~~
 1,020648
 4,0626678
 2321296
 3,8305382 $\cos \varphi = 1,4658818$

- 0,2321296

4,0504778
 2321296
 4,2826074

0,2657967

0,8991060 - ~~1,0219112~~
~~0,1088485~~
 1,0089684
 0,0108846
 0,1704492
 0,1739548

1,4658818
 2267444
 7,2391374
 0,6195687

2147867
 1,2510951
 0,6,255476

2,2543946
 1,0089684

0,2324833 $\sin \varphi = 0,21478667$
 0,2454262 0,2267444

11,442544
2,701314

15,143858
1914
1,282070

11,442544
5794

11,448338
1544
1,188882

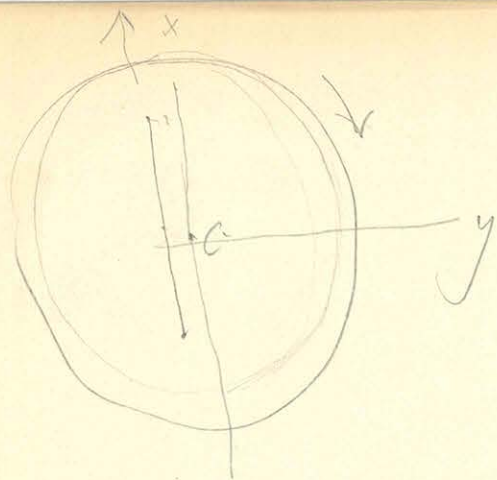
6,850248
3,701314

10,551562
1455
1,162913

6,850248
5794

6,856142
1085
1,035676

MAGYAR
TUDOMÁNYOS AKADÉMIA
KÖNYVTÁRA



$$\frac{L(y-b)}{((x-a)^2 + (y-b)^2 + z^2)^{\frac{3}{2}}}$$

$$\frac{L(y-\beta)}{((x-(l-a))^2 + (y-\beta)^2 + z^2)^{\frac{3}{2}}}$$

N =

Prin y - \beta

$$\frac{L(y-\beta)}{((x-(l-a))^2 + (y-\beta)^2 + z^2)^{\frac{3}{2}}} = \frac{Ly}{((x-l)^2 + y^2 + z^2)^{\frac{3}{2}}} - LP \left[\frac{1}{N^{\frac{3}{2}}} \right] + 3 \left[\frac{Ly^2}{N^{\frac{5}{2}}} \right] \beta$$

$$+ 3 \frac{Ly \times \alpha}{N^{\frac{5}{2}}}$$

~~619575~~

~~492388~~

~~7612~~

~~121929~~

~~675225~~

~~282683~~

~~3382687~~

~~2617217~~

~~7612~~

~~192388~~

88026

sin y

$$\frac{\sin y \cos y}{(a + b \sin y)^{\frac{3}{2}}}$$

$$\left[\frac{dy}{(a + b \sin y)^{\frac{3}{2}}} \right]$$

$$\frac{\sin^2 y}{(a + b \sin y)^{\frac{5}{2}}}$$

$$\frac{\sin y \cos y}{(a + b \sin y)^{\frac{5}{2}}}$$

$$\frac{1}{2} - \frac{1}{6}$$

$$s_1 =$$

$$\ln \left(-\frac{160}{3} \left[\frac{1}{s_1} \right] \right) = \frac{2}{3} \left[\frac{1}{3.5} - \frac{1}{\sqrt{21}(17)} \right]$$

long

$$= -2 \left[\frac{1}{\sqrt{13} \cdot 9} - \frac{1}{\sqrt{17} \cdot (13)} \right]$$

$$\begin{array}{r} 874354 \\ 3589 \\ \hline 85846 \end{array}$$

$$\begin{array}{r} 0,0666666666 \\ 128360263 \\ \hline 0,0838206403 \end{array} \quad \begin{array}{r} 9,1079612806 \\ 0,035887 \end{array}$$

- $\sqrt{2} = 1,41421356$
- $\sqrt{3} = 1,73205081$
- $\sqrt{5} = 2,23606798$
- $\sqrt{7} = 2,64575131$
- $\sqrt{11} = 3,31662479$
- $\sqrt{13} = 3,60555128$
- $\sqrt{17} = 4,12310563$

$$\begin{array}{r} 77,90570 \\ 0,01 \\ \hline 57,60040 \end{array}$$

$$32,45004$$

$$\begin{array}{r} 0,030816603 \\ 1865657 \\ \hline 0,01216063 \\ 0,02432 \\ 1,30373 \\ \hline 1,32805 \end{array}$$

$$a, 909 + b, 909 + c, 09 = 0, 05999193$$

$$b, 0, 0819 + c, 0, 089261 = - 0, 000923$$

$$b, 0, 2304 + c, 0, 377856 = - 0, 000022$$

$$0, 01886976 b + 0, 02056573 c = - 0, 00021266$$

$$0, 01886976 b + 0, 03094641 c = 0, 00000180$$

$$0, 01038068 c = + 0, 00021086$$

$$\begin{array}{r} 666577 \\ 22408 \\ \hline 0, 699985 \\ 20312 \\ \hline 0, 679672 \end{array}$$

$$c = 0, 0203127$$

$$b = - 0, 0334078$$

$$a = 0, 679672$$

$$\begin{array}{r} 0, 001813132 \\ 923 \\ \hline 0, 0027361 \end{array}$$

~~0, 0027361~~

$$\begin{array}{r} + 0, 06117048 \\ - 00002706 \end{array}$$

$$\begin{array}{r} 0, 06114342 \\ 00001472 \end{array}$$

$$0, 06115815$$

$$\begin{array}{r} + 0, 06117048 \\ 0002706 \end{array}$$

$$\begin{array}{r} 0, 06089988 \\ 0000147 \end{array}$$

$$0, 06090135$$

$$\begin{array}{r} + 0, 4349901 \\ - 0, 0138858 \\ \hline 0, 4211043 \\ + 0053249 \\ \hline 0, 426429 \end{array}$$

МАГЯН
ТЮБМАКТОС АКАДЕМИЯ
КОМПИЛАЦИЯ

Алгебра

$$a, 0, 090000 + b, 0, 090000 + c, 0, 090000 = 0, 05999193$$

$$0, 0, 09 + b, 0, 0081 + c, 0, 000729 = 0, 060915$$

$$b, 0, 081900 + c, 0, 089271 = 0, 00092307$$

$$a, 0, 640000 + b, 0, 640000 + c, 0, 640000 = 0, 42660928$$

$$a, 0, 640000 + b, 0, 409600 + c, 0, 262144 = 0, 42663100$$

$$b, 0, 230400 + c, 0, 377856 = - 0, 00002172$$

$$b, 0, 01886976 + c, 0, 02056804 = - 0, 000212675$$

$$+ c, 0, 03094640 = - 0, 000001779$$

$$c, 0, 01037836 = + 0, 000210896$$

$$+ 0, 06117093$$

$$- 00027070$$

$$0, 06090023$$

$$00001481$$

$$0, 0609150$$

$$+ 0, 4349933$$

$$- 0, 0144489$$

$$+ 0, 4205044$$

$$0053269$$

$$0, 425831$$

$$c = + 0, 0203206$$

$$\begin{array}{r} 0, 001814040 \\ 00092307 \end{array}$$

$$\begin{array}{r} 0, 001814040 \\ 00092307 \end{array}$$

$$0, 00273711$$

$$b = - 0, 03342014$$

$$a = 0, 6796765$$

$$\begin{array}{r} 66657700 \\ 3342014 \\ \hline 0, 66657700 \\ 3342014 \\ \hline 0, 69999714 \\ 203206 \\ \hline 0, 6796765 \end{array}$$

$$\begin{array}{r} 0, 66657700 \\ 3342014 \end{array}$$

$$\begin{array}{r} 0, 69999714 \\ 203206 \end{array}$$

$$0, 6796765$$

$$\begin{array}{r} + 0, 4349933 \\ 136888 \end{array}$$

$$\begin{array}{r} 0, 4213045 \\ 53269 \end{array}$$

$$0, 4266314$$

$$F_1 = ad^2 + bd^4 + cd^6 + \dots$$

$$- \frac{at^4 + bt^6 + ct^8}{at^2(at^2 + bt^4 + ct^6)}$$

$$\left(\frac{\partial F}{\partial c}\right)_0 =$$

$$at^4 + bt^6$$

$$\begin{array}{r} 64 \\ 64 \\ \hline 256 \\ 284 \\ \hline 4096 \end{array}$$

$\lambda = 0,3$ $8d_8 = 0,047936$ $12d_{12} = +0,0061536$ $16d_{16} = +0,002336$ $20d_{20} = -0,002726$
 $\lambda = 0,8$ $\lambda^6 = 0,000729$ $\lambda^{10} = 0,000059049$ $\lambda^{14} = 0,0439805$ $\lambda^{18} = 0,0180144$
 $\lambda^8 = 0,262144$ $\lambda^{10} = 0,1073742$ $\lambda^{14} = 0,0439805$ $\lambda^{18} = 0,0180144$

$$\begin{array}{r} 0,624405 \\ 47926 \\ \hline 0,672341 \\ 2726 \\ \hline 0,675067 \\ 08490 \\ \hline 0,683557 \\ 008490 \\ \hline 0,692047 \end{array}$$

$$\begin{array}{r} 0,0061536 \\ 2236 \\ \hline 8490 \\ \hline 0,0000000000 \\ 81 \\ \hline 0,00000059049 \\ 59049 \\ \hline 0,00000059049 \end{array}$$

$$\lambda^4 = 0,4096$$

$$0,1073741824$$

$$\begin{array}{r} 0,000035 \\ 60880 \\ \hline 60915 \end{array}$$

$$-0,0125661$$

$$+0,0006607$$

$$+0,0001027$$

$$-0,0000491$$

$$\lambda^{18} = 0,00001076$$

$$\begin{array}{r} 0,414779 \\ 12566 \\ 49 \\ \hline 0,427394 \\ 763 \\ \hline 0,426631 \end{array}$$

$$\begin{array}{r} 8607 \\ 1027 \\ \hline 763 \end{array}$$

$$0,00604662$$

$$\lambda^{14} = 0,000783642$$

$$\begin{array}{r} 0,2413006 \\ 0,0000372 \\ 0,0000018 \\ \hline 0,2413396 \\ 22365 \\ \hline 0,2391031 \end{array}$$

$$\begin{array}{r} 0,00223650 \\ 0,00000003 \\ \hline 0,00223653 \end{array}$$

$$\begin{array}{r} 99001426 \\ 21064 \\ 81895426 \\ \hline 18460000 \\ 18460000 \end{array}$$

0,846556
985

0,845571

0,927252 - 1
150515

0,776636

0,597910
21601

0,576249
619571

$$8A_4 + 16A_8 = 0,172992$$

$$8A_8 + 64A_{16} = 0,176096$$

85846
46959
1,32805

$$48A_8 = 0,002104 / 0,00004382$$

$A_8 =$
192
184
194
400
384
160

2,18651

1,40877
0,176096

0,021749
88
0,021661

438
876

1,408768

-6,58953

46959

$$A_4 + 2A_8 = 0,021749$$

823691

89528

8/512 / 64

0,02178173992

$$A_2 + 3A_6 = \cancel{0,8217998} - 0,8435995 \quad \cancel{23743980}$$

$$A_2 + 27A_6 =$$

-0,819941
0,023658

$$24A_6 = \cancel{0,019908} \quad 0,023658$$

$$24 / 0,019908 / 0,0008295$$

70
48
228
216
126

0,8435995
24885
0,8460880

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TUDOMÁNYOS AKADÉMIA
KÖNYVTÁRA

0,173608
000700
174308

0,846088
829
0,846917

6,55953
0,819941
6559528

4A

~~6768704~~
~~2,256235~~
~~59724~~

1,40877 24
176096

$$/ 0,023658 / 0,0008295$$

216
265
192
1300029562

846556
2985
0,847541

-0,8435995
29562
0,8465557

3,17504
 170711
 484215
 1,42793

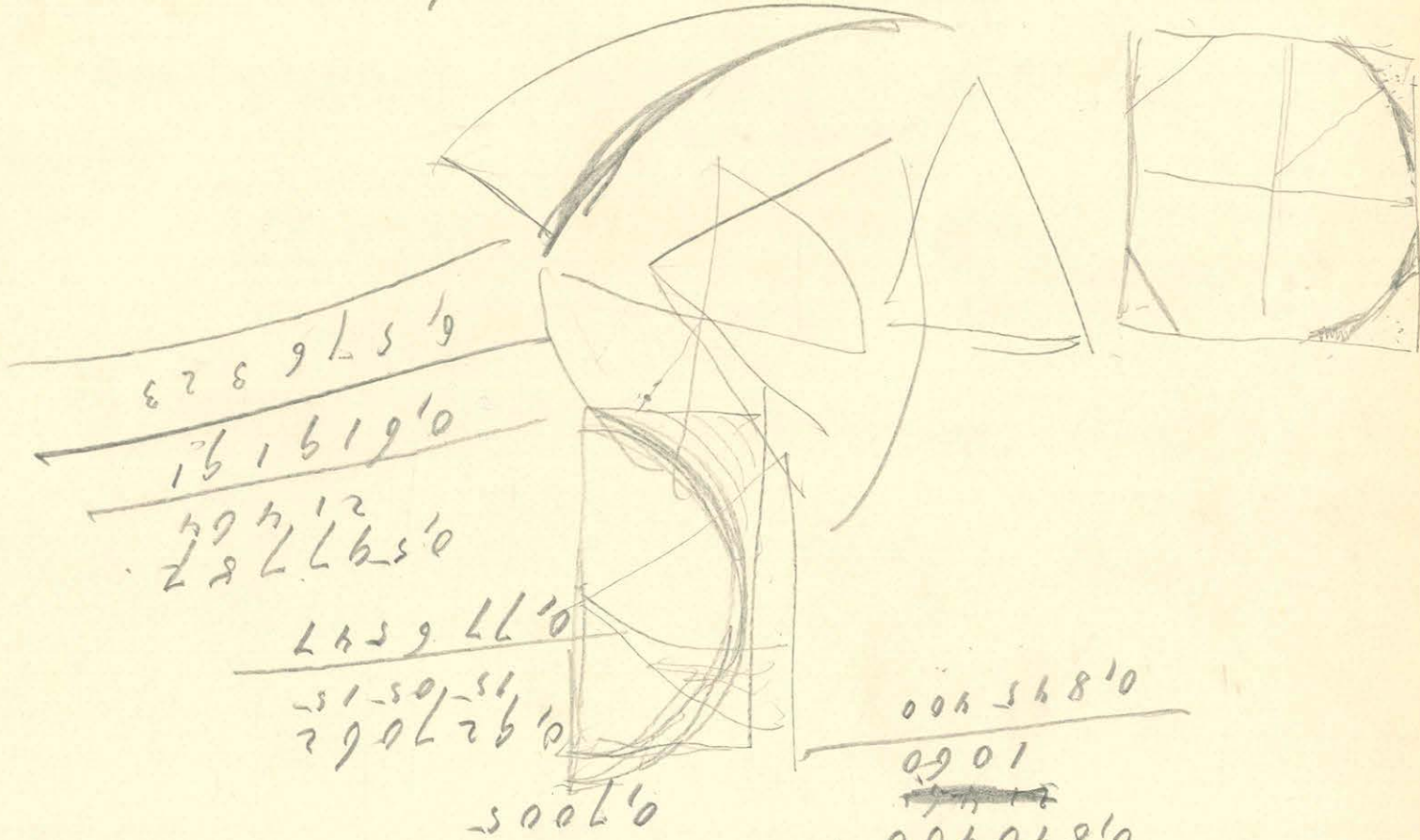
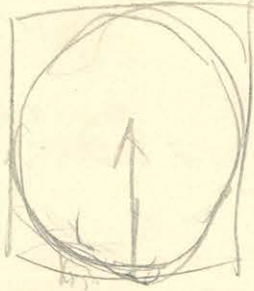
2042448
 292890
 2,235341
 1,749555

2,0

2,64575
 29289
 2,93864
 2,35286

2,64575
 170711
 4,35286
 0,93864

2,64575



0,620299

4,17156

20
 8
 4/32

0,9334186 - 2
 9287866
 4,1715733

$$\frac{1}{2}d_2 + \frac{1}{2}d_4 - \frac{1}{2}d_6 - \frac{1}{2}d_{10}$$

$A_2m_{10} + A_4m_6 + A_6m_4 + A_{10}m_2 + A_{10}m_{10}$

0 1/2

846460
 0,836876

 0,009594

$$0,836876(1 + \lambda^2 0,009594) - \lambda^2 0,022122 \sin 4\delta - \lambda^4 0,001020 \sin 6\delta$$

$\frac{6}{16} \frac{3}{8}$ 2660

logit. 2.0,836876 (1)

logit. $1,677752(1 + 0,002398) - 0,022122 - 0,000382 = 1,655261$
 1,677766

trans. $1,677766 + 0,022122 - 0,000382 = 1,699506$

$$F = -4/5 l^2 (2d_2 \cos 2\delta + 4d_4 \cos 4\delta + 6d_6 \cos 6\delta + 8d_8 \cos 8\delta + 10d_{10} \cos 10\delta)$$

logit. $-4/5 l^2 (2d_2 + 4d_4 + 6d_6 + 8d_8 + 10d_{10})$

846460
 187
 40

 0,846687
 22122

 0,824565

$$T = -4/5 l^2 (d_2 \sin 2\delta + d_4 \sin 4\delta + \dots)$$

logit. $F = -4/5 l^2 (d_2 \sin 2\delta + d_4 \sin 4\delta + d_6 \sin 6\delta + d_8 \sin 8\delta + d_{10} \sin 10\delta)$

+2d₂ +4d₄ +6d₆ +8d₈ +10d₁₀
 $-\frac{18d_2}{5} - \frac{1}{5} 64d_4 - \frac{1}{5} 218d_6 - \frac{1}{5} \frac{512}{16} d_8 - \frac{1}{5} 1000d_{10}$
 -1,128613 +0,235969 +0,027060 -0,015957 -0,006667

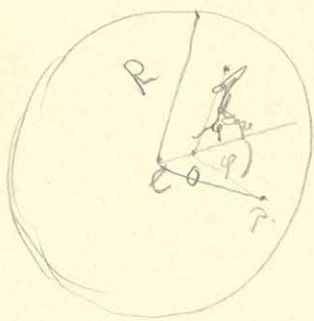
trans. $\frac{\partial F}{\partial \delta} = -4/5 l^2 (-2d_2 \sin 2\delta + 4d_4 \sin 4\delta - 6d_6 \sin 6\delta + 8d_8 \sin 8\delta - 10d_{10} \sin 10\delta)$

-2d₂ +4d₄ -6d₆ +8d₈ -10d₁₀
 $+\frac{1}{5} 8d_2 - \frac{1}{5} 64d_4 + \frac{1}{5} 218d_6 - \frac{1}{5} \frac{512}{16} d_8 + \frac{1}{5} 1000d_{10}$

logit. $\frac{\partial F}{\partial \delta} = -4/5 l^2 1,600208$

trans. $\frac{\partial F}{\partial \delta} = 4/5 l^2 1,774192$

Körök középpontjának közös irányú egyenes-
 irányú tömegközéppontjának közös momentum...



C a körnek ~~közép~~ középpontja
 O a közös középpontja.
 φ a körnek középpontjánál CO-hoz szerelt
 $CP = x$ $CO = \varepsilon$
 $x^2 = \varepsilon^2 + l^2 + 2l\varepsilon \cos \varphi$

Tömegmomentum $\frac{\partial V}{\partial \varphi} = \frac{\partial U}{\partial \varphi}$

Taylor sorozat $\sigma = \text{teljesen kis mennyiség}$

$$V = -2\pi\sigma z + 2\sigma \left\{ \sqrt{(R+x)^2 + z^2} \left[F\left(k, \frac{\pi}{2}\right) - \frac{x^2 - R^2}{(R+x)^2 + z^2} F\left(k, \frac{\pi}{2}\right) - \frac{(x-R)z^2}{(x+R)\sqrt{(R+x)^2 + z^2}} \Pi\left(\lambda, k, \frac{1}{2}\pi\right) \right] \right\}$$

$$k^2 = \frac{4Rx}{(R+x)^2 + z^2}$$

$$\lambda = -\frac{4Rx}{(R+x)^2}$$

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 TUDOMÁNYOS AKADÉMIA
 KÖNYVTÁRA