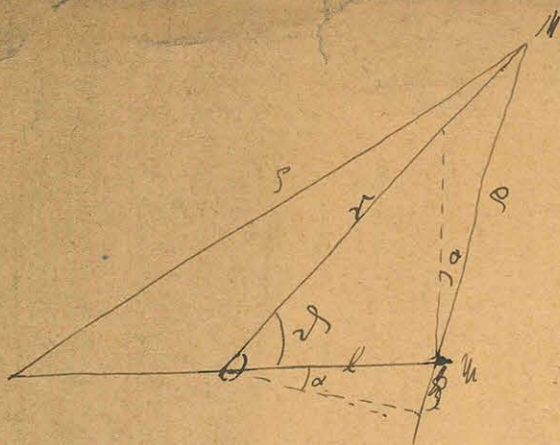


Ms. 5100/4. Granitáció. Eötvös L.
jézsek

1 kötet bor.
M. TUD. AKADEMIA
KÖZMŰVELŐSÉGI KÖZVETÍTŐ IRODA
1927. évi 17. sz.



Fad

$$\frac{2Mm}{s^2} \cos \alpha$$

$$\frac{r}{s} = \frac{\cos \alpha}{\sin \delta} \quad \cos \alpha = \frac{r}{s} \sin \delta$$

$$\frac{2Mm}{s^3} l r \sin \delta$$

$$s^2 = l^2 + r^2 - 2lr \cos \delta$$

$$\frac{2Mm l r \sin \delta}{[l^2 + r^2 - 2lr \cos \delta]^{\frac{3}{2}}} = \frac{2Mm l r \sin \delta}{r^2 \left[1 - 2\frac{l}{r} \cos \delta + \left(\frac{l}{r}\right)^2 \right]^{\frac{3}{2}}}$$

$$P_1 = \cos \delta$$

$$P_2 = \frac{3}{2} (\cos^2 \delta - \frac{1}{2}) = \frac{3}{2} (\cos^2 \delta - \frac{1}{2})$$

$$P_3 = \frac{5}{2} (\cos^3 \delta - \frac{3}{2} \cos \delta) = \frac{5}{2} (\cos^3 \delta - \frac{3}{2} \cos \delta)$$

$$P_4 = \frac{35}{8} (\cos^4 \delta - \frac{6}{7} \cos^2 \delta + \frac{3}{8})$$

$$P_5 = \frac{63}{8} (\cos^5 \delta - \frac{10}{9} \cos^3 \delta + \frac{5}{27} \cos \delta)$$

$$\left(1 - 2\frac{l}{r} \cos \delta + \left(\frac{l}{r}\right)^2 \right)^{-\frac{3}{2}} = 1 + P_1 \frac{l}{r} + P_2 \left(\frac{l}{r}\right)^2 + P_3 \left(\frac{l}{r}\right)^3 + \dots$$

$$\left(1 + 2\frac{l}{r} \cos \delta - \left(\frac{l}{r}\right)^2 \right)^{-\frac{3}{2}} = 1 + 3P_1 \frac{l}{r} + (3P_2 + 3P_1^2) \left(\frac{l}{r}\right)^2 + (3P_3 + P_1^3) \left(\frac{l}{r}\right)^3 + (3P_4 + 3P_1^2 P_2) \left(\frac{l}{r}\right)^4 + (3P_5 + 3P_1 P_3 + 3P_1^2 P_2) \left(\frac{l}{r}\right)^5$$

$$\left(2\frac{l}{r} \cos \delta + \left(\frac{l}{r}\right)^2 \right)^{-\frac{3}{2}} = 1 - 3P_1 \frac{l}{r} + (3P_2 + 3P_1^2) \left(\frac{l}{r}\right)^2 - (3P_3 + P_1^3) \left(\frac{l}{r}\right)^3 + (3P_4 + 3P_1^2 P_2) \left(\frac{l}{r}\right)^4 - (3P_5 + 3P_1 P_3 + 3P_1^2 P_2) \left(\frac{l}{r}\right)^5 + \dots$$

$$T = \frac{2Mm r \sin \delta}{r^2} \cos \alpha \left[3P_1 \left(\frac{l}{r}\right) + (3P_3 + P_1^3) \left(\frac{l}{r}\right)^3 + (3P_5 + 3P_1^2 P_3 + 3P_1 P_2^2) \left(\frac{l}{r}\right)^5 \right]$$

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$$\frac{2Mm \sin \delta}{r^2} \cos \alpha \left[3 \cos \delta \left(\frac{l}{r}\right) + (3[\cos^3 \delta - \frac{3}{2} \cos \delta] \frac{5}{2} + \cos^3 \delta) \left(\frac{l}{r}\right)^3 + \right.$$

$$\left. + (3 \frac{63}{8} (\cos^5 \delta - \frac{10}{9} \cos^3 \delta + \frac{5}{27} \cos \delta) + 3 \cdot \frac{5}{2} \cos \delta (\cos^3 \delta - \frac{3}{2} \cos \delta) + 3 \cos \delta \cdot \frac{9}{4} (\cos^2 \delta - \frac{1}{2})^2) \left(\frac{l}{r}\right)^5 \right]$$

$$P = \frac{2Mm \sin \delta}{r^2} \cos \alpha \left\{ 3 \frac{l}{r} \cos \delta + \left[\frac{17}{2} \cos^3 \delta - \frac{9}{2} \cos \delta \right] \left(\frac{l}{r}\right)^3 - \left[\frac{303}{8} \cos^5 \delta - \frac{141}{4} \cos^3 \delta + \frac{57}{8} \cos \delta \right] \left(\frac{l}{r}\right)^5 \right\}$$

$$T = \frac{2Mm}{r^2} \left[\frac{3m \sin \delta}{2r} \int l^2 dm + \frac{\sin \delta (\frac{17}{2} \cos^3 \delta - \frac{9}{2} \cos \delta)}{r^3} \int l^4 dm + \frac{3 \sin \delta (101 \cos^5 \delta - 97 \cos^3 \delta + 17 \cos \delta)}{8 r^5} \int l^6 dm \right]$$

	0	10	20
P_1			
P_2			
P_3			
P_4			
P_5			

$T = a r^2$

$$T = a_1 r^2 + b_1 r + c_1$$

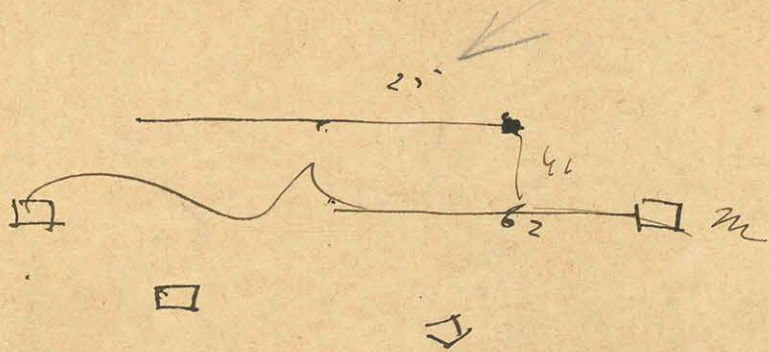
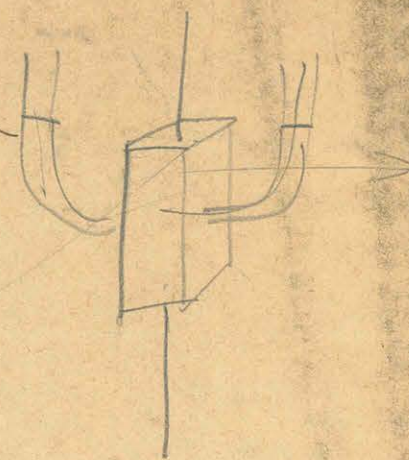
$$T = T_1 = a_1 r^2 + b_1 r$$

$$T = T_2 = a_2 r^2 + b_2 r + c_2$$

$$T = T_3 = a_3 r^2 + b_3 r + c_3$$

$$F(\varepsilon) = T_0 + \varepsilon F_1 + \varepsilon^2 F_2 + \dots$$

$$F(\varepsilon) - T_0 = k\varepsilon$$



$$\delta \varepsilon_1 + \delta \varepsilon_2 = \frac{7M}{\gamma^3} \delta \left(\frac{\gamma}{2} \right)$$

76-16
158
436
5956

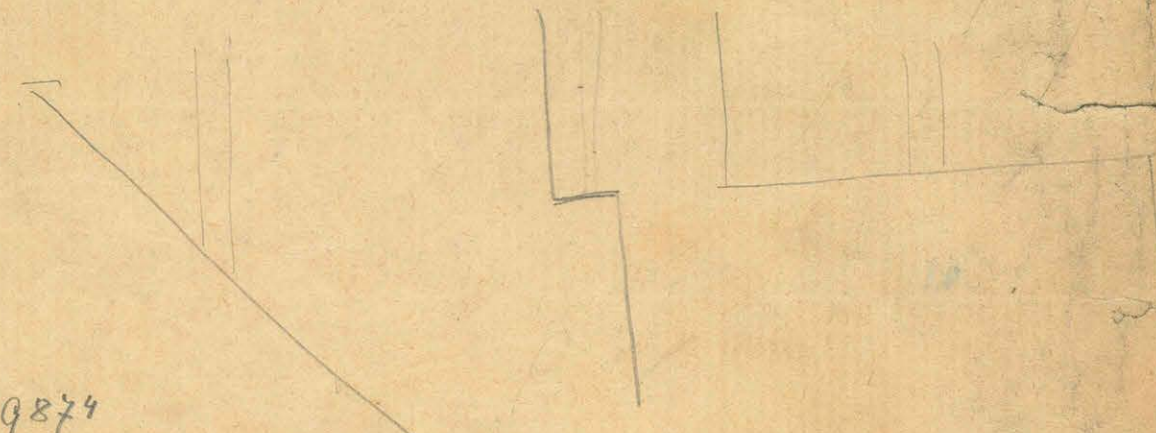
$$\frac{(a+m)^2 - (a-m)^2}{a^2 - m^2}$$

$$\frac{(a+m)^2 + (a-m)^2}{a^2 - m^2}$$

$$\frac{a^2 + 2am + m^2 - a^2 + 2am - m^2}{a^2 + 2am + m^2 + a^2 - 2am + m^2} = \frac{4am}{2(a^2 + m^2)} = \frac{2am}{a^2 + m^2}$$

100.132 = 76
924
760

MASTAR
HUNGARIAN AKADEMIA
KÖNYVTÁRA



270,2
278,0

270,2 : 273,0 = 0,9874
2007

1950
1784
1660
1561
990

9874 x 7,912
69118
88866
9874
19748
78123088
71

Ariza munda vamatk'ov' adator.

Arjok arja.

Medy unsen:

8,5	10,3
	10,1
8,8	9,9
<u>8,65</u>	<u>10,1</u>

Expans $\frac{8,65+10,1}{2} = \frac{18,75}{2} = 9,38$

I. jofoval

9,3	9,7
9,3	9,7
<u>9,3</u>	
9,3	9,7

Expans: 9,50

Medyca: 28,37 gr.

I. jofi tounge = 28,311 gr.

6,9	9,8
7,2	9,3
<u>7,6</u>	
7,23	9,55

Expans = $\frac{16,78}{2} = 8,39$

Medyca 28,32 gr.

1 cgr. = 1,11 unsh' ruz
1 unsh' ruz = 0,90 cgr.

II. jofi tounge = 28,350 gr

II. jofoval

Expans = $\frac{18,83}{2} = 9,42$

8,8	10,0
8,9	9,8
<u>9,1</u>	
8,93	9,90

Medyca. 28,35 gr.

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Ariza mufj'oval

	10,3
7,9	10,1
<u>8,2</u>	<u>9,8</u>
8,15	10,07

Expans $\frac{18,22}{2} = 9,11$

Medyca. 9,63 gr.

Ariza mufjanak tounge = 9,628 gr.

Lepidrodiaal

Egenskap = $\frac{19,27}{7} = 9,64$

9,4	9,9
	9,8
9,4	9,8
<hr/>	
9,40	9,87

Medjen 7,91 gr.

Lepidrodiaal tungge = 7,912 gr.

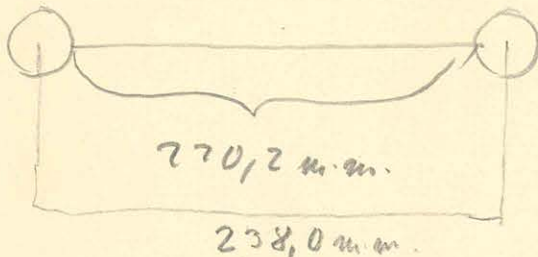
Egenskap = $\frac{16,63}{2} = 8,32$

7,5	9,0
7,8	8,8
	<hr/>
7,9	8,90
<hr/>	
7,73	

Medjen 7,92 gr.

1 cgr = 1,37 ontogruen

1 onstogruen = 0,76 cgr.



27

Lepidrodiaal loma: 223,0 gr.

A loma bupisweji 8,6 masodperer.

Aranya muljanek tungge kankak meikal = $7,912 \times \frac{270,2}{223,0} = 7,912 \times 0,9874$
 $= 7,812$

Telat a kankak tungge = $9,628 - 7,812 = 1,816$ gr.

$$\frac{J}{2} = 49^\circ 6' 23''$$

$$\begin{array}{r} \rho \cos^2 J = 0,632203-1 \\ 2,322219- \\ \hline 1,954422 \end{array}$$

$$90,0373$$

$$+ \frac{315}{1250000}$$

$$2D = 98^\circ 12' 23''$$

$$\rho \sin 2D = 0,1154$$

$$\rho \sin 2D = 0,995530-1$$

$$\begin{array}{r} 99,7151 = 0,673491 \\ \hline 0,669021 \end{array}$$

$$\begin{array}{r} \rho \cos^2 D = 0,264406-1 \\ 2,363612 \\ \hline 1,628018 \end{array}$$

$$\begin{array}{r} 42,4637 \\ 35 \\ \hline 77,4637 \end{array}$$

$$\begin{array}{r} 77,4637 \\ 90,0373 \\ \hline 12,5736 \times 3 \end{array}$$

$$37,17208 : 8 = -4,7151 = a_3$$

$$a_3 \sin 2D = -4,66682$$

$$\begin{array}{r} \rho \cos^2 D = 0,632203-1 \\ 3,032216 \\ \hline 2,664419 \end{array}$$

$$\begin{array}{r} 461,763 \\ 152,507 \\ \hline 614,270 \\ 605,072 \end{array}$$

$$\begin{array}{r} 9,198 \times 3 \\ 27,594 : 16 = 1,72463 \\ 16 \quad 11 \\ \hline 115 \\ 112 \\ \hline 39 \\ 32 \\ \hline 74 \\ 64 \\ \hline 100 \end{array}$$

$$\begin{array}{r} \rho \cos^2 D = 0,264406-1 \\ 3,439506 \\ \hline 2,704212 \end{array}$$

$$\begin{array}{r} 506,072 \\ 99 \\ \hline 605,072 \end{array}$$

$$\begin{array}{r} 0,995530-1 \\ 2,172 = 0,236793 \\ \hline 0,232323 \\ 1,70735 \end{array}$$

$$\begin{array}{r} \rho \cos^6 D = 0,896609-2 \\ 3,286681 \\ \hline 2,183290 \end{array}$$

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$$\begin{array}{r} 0,995530-1 \\ 277121 \\ \hline 0,472651 \end{array}$$

$$2,96928$$

$$\frac{J}{2} = 24^\circ 33' 12''$$

$$\begin{array}{r} 461 \times 12 \\ 922 \\ \hline 5532 \end{array}$$

$$\rho \sin \frac{J}{2} = 0,618613-1$$

$$\begin{array}{r} 120,3 = 1,605305 \\ \hline 1,223918 \\ 16,76 \end{array}$$

$$\rho \arctan = 33,52$$

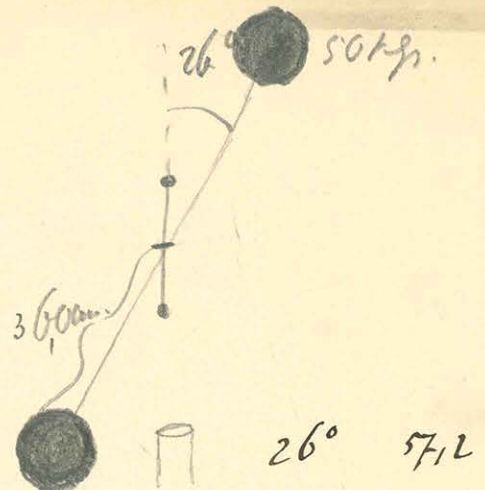
$$30 \frac{40,3}{386}$$

$$\begin{array}{r} 1209 : 386 = 3,13 \\ 1158 \\ \hline 510 \\ 786 \\ \hline 1246 \end{array}$$

1892 máj 25

I. állás

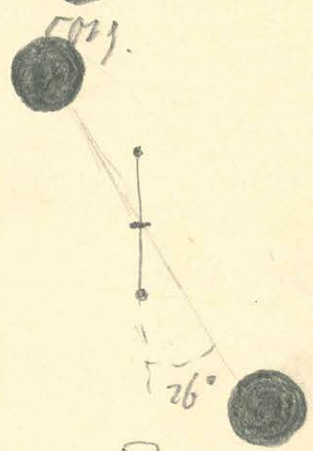
Magasság	Állás	Magasság	Expanszió
16h. 9m. 0.	275,9	282,2	282,2
19m.	287,9	282,2	282,2
29	277,2	282,2	282,2



26°

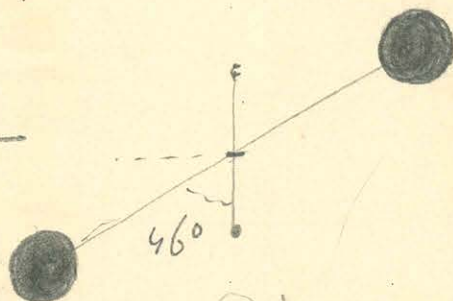
II. állás

Magasság	Állás	Expanszió
38m. 40.	175,3	225,0
	269,0	225,1
58m. 40	186,1	225,0
	259,0	



I. állás

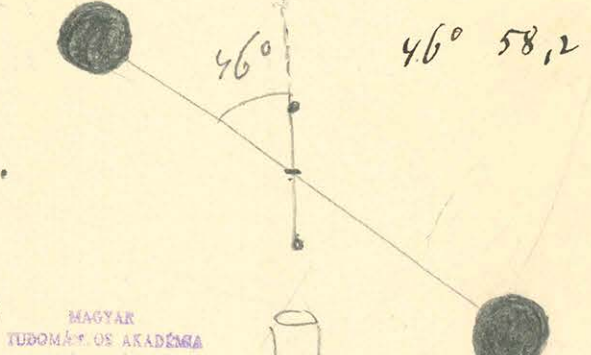
Magasság	Állás	Expanszió
11h. 21m. 0.	307,0	282,1
31m.	259,9	282,2
41	301,85	282,0
51m.	264,9	



46°

II. állás

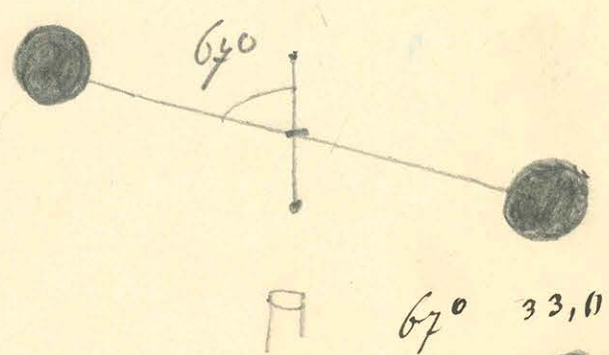
Magasság	Állás	Expanszió
12h. 0m. 20.	182,9	224,1
10m. 20	261,6	224,2
20m. 20	190,2	223,8
20	255,0	



MAGYAR TUDOMÁNYOS AKADEMIA KÖNYVTÁRA

I. állás

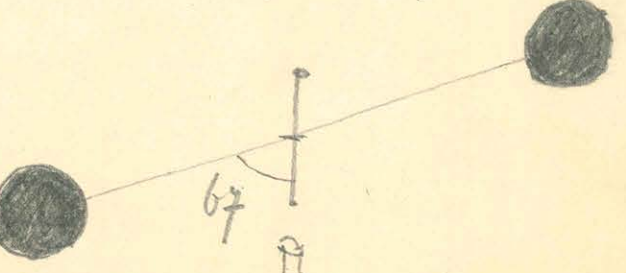
Magasság	Állás	Expanszió
12h. 39m. 40.	221,2	237,1
49 40	251,0	237,2
59 40	224,9	236,7
12. 10m.	248,0	



67°

II. állás

Magasság	Állás	Expanszió
1h. 21m. 0.	290,0	270,3
31m.	252,8	270,4
41	285,8	269,7
51	256,8	



szépeltár a teljes lap, un!

26°

Ialla'

2h. 1m. 201.
17m. 201.
2h. 201.

305,7
263,0
300,7

Expend
283,0
283,0



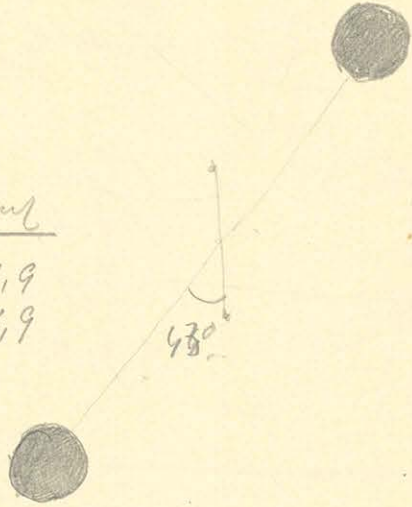
Major 26

Ialla'

9h. 4m.
9h. 50m.
10h. 0m.

287,7.
290,1
287,85

Expend
288,9
288,9

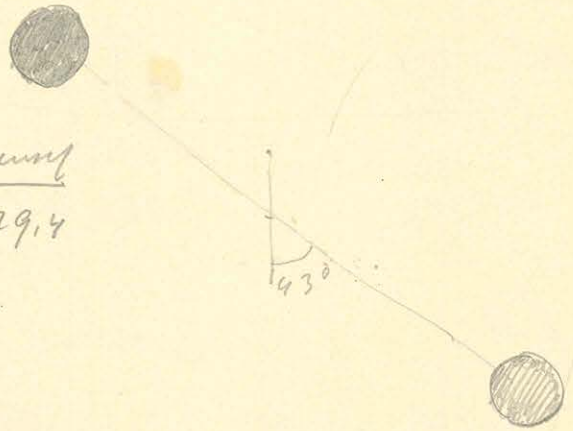


IIalla'

10h. 10m. 40.
20 30.
30 30
40 20

177,9
274,7
189,5
264,7

Expend
229,4



Ialla'

47m. 201.
52m. 30
11h. 2 30
12 30
22 30
32 30

261,8.
313,1
267,0
307,5
273,15
303,9
276,

Expend
288,8
288,5
288,9
289,4
289,6

$$\frac{\Gamma}{\kappa_1} = 0,0000548724$$

$$\frac{\tau r^2}{27 M \kappa_1} \varepsilon_2 = 26 \text{ mD}, \left[3 \frac{\text{cos } \theta}{r} \right]$$

$$\frac{\tau r^2}{27 M \kappa_1} \varepsilon_1 = 0,0775295 + 0,000026438 \frac{\kappa_2}{\kappa_1} = \frac{\tau r^2}{27 M \kappa_1} 61,9$$

$$\frac{\tau r^2}{27 M \kappa_1} \varepsilon_3 = 0,071853 - 0,0000446862 \frac{\kappa_2}{\kappa_1} = \frac{\tau r^2}{27 M \kappa_1} 44,9$$

$$\begin{array}{r} 161,9 = 1,791691 \\ 0,856442-2 \\ \hline 0,648139 \end{array}$$

$$\begin{array}{r} 144,9 = 1,632457 \\ 0,889467-2 \\ \hline 0,521924 \end{array}$$

$$\begin{array}{r} 161,9 = 1,791691 \\ 0,650173-5 \\ \hline 0,441864-3 \end{array}$$

$$\begin{array}{r} 144,9 = 1,632457 \\ 0,422239-5 \\ \hline 0,054696-3 \end{array}$$

$$\begin{array}{r} 4,4477 \\ 3,3260 \\ \hline 1,1217 \end{array}$$

$$\begin{array}{r} 0,0027661 \\ 0011345 \\ \hline 0,0039006 \end{array}$$

$$\begin{array}{r} 1,1217 = 0,049877 \\ 10,000 = 0,591132-3 \\ \hline 1 \frac{\kappa_2}{\kappa_1} = 2,458245 \\ 0,650173-5 \\ \hline 0,108918-2 \end{array}$$

$$\begin{array}{r} 0,0128504 \\ 071853 \\ \hline 0,059003 \end{array}$$

$$\begin{array}{r} 0,312512-9 \\ 10,05903 = 0,770874-2 \\ \hline 0,541638 \end{array}$$

000 000 348

$$\underline{f = 0,000000696}$$

$$\frac{\tau r^2}{2 M \kappa_1} = 0,265064-7$$

$$\begin{array}{r} 206682-2 \\ \hline 0,471246-9 \end{array}$$

10,087...

$$\begin{array}{r} 0,940187-2 \\ \hline 0,531565-8 \end{array}$$

$$0,0000006340$$

$$\begin{array}{r} 261,9 = 1,791691 \\ 3,585009 \\ \hline 0,206682-2 \end{array}$$

$$\begin{array}{r} 1 \frac{\kappa_2}{\kappa_1} = 2,458245 \\ 0,422239-5 \\ \hline 0,880984-3 \\ 0,0076030 \\ 775295 \\ \hline 0,0821325 \end{array}$$

$$\underline{f = 0,000000680}$$

$$\tau \varepsilon_1 = \frac{47M \sin d_1}{r^2} \left[\frac{3 \cos d_1}{r} \kappa_1 + \frac{1,094264}{r^2} \kappa_2 \right]$$

$$\tau \varepsilon_2 = \frac{47M \sin d_2}{r^2} \left[\frac{3 \cos d_2}{r} \kappa_1 - \frac{1,195303}{r^2} \kappa_2 \right]$$

$$\left(\frac{\tau}{2\kappa_1}\right) \varepsilon_1 = \frac{2,37M \sin d_1}{r^3} + \frac{2,1094264 M \sin d_1}{r^5} \frac{\kappa_2}{\kappa_1}$$

$$\left(\frac{\tau}{2\kappa_1}\right) \varepsilon_2 = \frac{2,37M \sin d_2 \cos d_2}{r^3} - \frac{2,1195303 M \sin d_2}{r^5} \frac{\kappa_2}{\kappa_1}$$

$$T = \frac{\pi}{\sqrt{E-d^2}} \quad T = \frac{\pi}{\sqrt{E-d^2}}$$

$$d = e^{-dT} \quad T = 599,775 \quad d = 0,8855$$

$$d = 0,947189-1 \quad d^2 = 0,613104-8$$

$$= -0,052811$$

$$1/d = 0,722724-2 \quad \frac{d^2}{1/d} = \frac{\pi^2}{T^2}$$

$$\frac{637789-1}{0,084940-1} \quad \frac{\tau}{k-d^2} = \frac{\pi^2}{T^2}$$

$$5T = 2,777988 \quad \frac{\pi^2}{T^2} = 0,438324-5$$

$$1/d = 0,306952-4 \quad \frac{\pi^2}{T^2} = 0,0000274362$$

$$d' = 0,0000000410$$

$$\frac{\tau}{2\kappa_1} = 0,0000274772$$

$$r = 1,555699$$

$$\varepsilon_1 = \frac{81,9}{3846} \quad \varepsilon_2 = \frac{92,9}{3846} \quad M = 48580$$

$$r = 35,95 \quad M = 49700$$

$$d_1 = 34^\circ 8' 41'' \quad d_2 = 68^\circ 17' 22'' \quad M = 98250$$

$$d_1 = 60^\circ 16' 59'' \quad d_2 = 120^\circ 33' 58'' \quad M = 1946$$

$$M = 96304$$

$$3 \sin 2d_1 = 0,968045-1 \quad 3 \sin 2d_2 = 0,935020-1$$

$$3d = 0,477121 \quad 477121$$

$$3M = 4,983644 \quad 4,983644$$

$$5,428810$$

$$2r^2 = 4,668097 \quad 5,395285$$

$$0,761713 \quad 4,667097$$

$$0,728688$$

$$1/d = 0,039122 \quad 1/d^2 = 0,077478$$

$$3 \sin d_1 = 0,749184-1 \quad 3 \sin d_2 = 0,938762-1$$

$$12 = 0,301030 \quad 301030$$

$$3M = 4,983644 \quad 4,983644$$

$$5,072980 \quad 5,300974$$

$$9r^5 = 7,778495 \quad 7,778495$$

$$0,294485-3 \quad 0,522419-3$$

$$1 \varepsilon_1 = 0,206682-2 \quad 3 \varepsilon_2 = 0,133169-2$$

$$2 \frac{\tau}{2\kappa_1} = 0,438973-5 \quad = 0,047441-2$$

$$0,645655-7 \quad 0,438973-5$$

$$0,486414-7$$

$$0,000000442237 = 5,777147 + 0,00197009 \frac{\kappa_2}{\kappa_1}$$

$$0,000000306489 = 5,354127 - 0,00332901 \frac{\kappa_2}{\kappa_1}$$

$$\{ 4,00332901 = 0,486414-7 \quad 50,0019... = 0,$$

$$\{ 5,77... = 0,761713$$

$$0,248127-2$$

$$50,0033... = 0,522419-3 \quad 50,0019... = 0,294485-3$$

$$55,77... = 0,728688 \quad 0,0192367$$

$$0,284132-2 \quad 0,023173-2 \quad 0,0105481$$

$$0,292848 = N$$

$$0,0033... = 0,522419-3 \quad 50,001... = 0,294485-3 \quad 0,000000001472597$$

$$50,000...44... = 0,645655-7 \quad 50,000...30... = 0,486414-7 \quad 0,000000000603808$$

$$0,168074-9 \quad 0,780899-10 \quad 0,00000000207641 = h$$

$$5d = 0,317313-9$$

$$5N = 0,473975-2$$

$$5f = 0,843357-8 \quad f = 0,00000006972$$

$$55,77... = 0,761713$$

$$50,000...31... = 0,486414-7$$

$$0,248127-6$$

$$55,35... = 0,728688$$

$$50,000...44... = 0,645655-7$$

$$0,324343-6$$

$$\delta = 60^{\circ} 16' 59''$$

$$\begin{array}{r} 243038 \\ 695232 \\ 642503 \\ \hline 580873 \\ -0,380867 \\ +0,098550 \\ \hline -0,282317 = Q_4 \\ 2Q_4 = 0,450737 - 1 \end{array}$$

$$\begin{array}{r} 255273 \\ 695232 \\ 450737 \\ \hline 401242 \\ -0,251908 \\ +0,351231 \\ +0,099323 \\ \hline 3Q_5 = 0,997050 - 2 + \end{array}$$

$$\begin{array}{r} 263242 \\ 695232 \\ 997050 - 2 \\ 95524 - 2 \\ \hline +0,090266 \\ +0,235265 \\ \hline +0,325531 = Q_6 \\ 5Q_6 = 0,512593 - 1 + \end{array}$$

$$\begin{array}{r} 268845 \\ 695232 \\ 512593 \\ \hline 486670 \\ +0,299688 \\ -0,085134 \\ \hline +0,214554 = Q_2 \\ 3Q_2 = 0,331596 - 1 + \end{array}$$

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$$1 + P_1 \left(\frac{e}{7}\right) + P_2 \left(\frac{e}{7}\right)^2 + \dots$$

$$1 + 2P_1 \frac{e}{7} + (P_1^2 + 2P_2) \left(\frac{e}{7}\right)^2 + (2P_3 + 2P_1 P_2) \left(\frac{e}{7}\right)^3 + \dots$$

$$1 + (2P_1 + P_1^2) \frac{e}{7} + (P_1^2 + 2P_2 + 2P_1^2 + P_2) \left(\frac{e}{7}\right)^2 + \dots$$

$$(2P_3 + 2P_1 P_2 + P_1^3 + 2P_1 P_2 + 2P_1 P_2 + P_3) \left(\frac{e}{7}\right)^3 + \dots$$

$$(3P_3 + 6P_1 P_2 + P_1^3) \left(\frac{e}{7}\right)^3 + \dots$$

$$(-3P_3 + 6P_1 P_2 - P_1^3) \left(\frac{e}{7}\right)^4 + \dots$$

$$3P_3 + 6P_1 P_2 + P_1^3$$

$$1 + 2P_1 \left(\frac{e}{7}\right) + (P_1^2 + 2P_2) \left(\frac{e}{7}\right)^2 + (2P_3 + 2P_1 P_2) \left(\frac{e}{7}\right)^3 + (2P_4 + 2P_3 P_1 + P_2^2) \left(\frac{e}{7}\right)^4 + (2P_5 + 2P_1 P_4 + 2P_2 P_3) \left(\frac{e}{7}\right)^5 + \dots$$

$$1 + P_1 \frac{e}{7} + P_2 \left(\frac{e}{7}\right)^2 + P_3 \left(\frac{e}{7}\right)^3 + P_4 \left(\frac{e}{7}\right)^4 + P_5 \left(\frac{e}{7}\right)^5 + \dots$$

$$\left[P_5 + 2P_1 P_4 + P_3 P_2 + 2P_3 P_2 + 2P_1 P_2^2 + 2P_1 P_4 + 2P_3 P_1 + P_1 P_2^2 + 2P_5 + 2P_1 P_4 + 2P_2 P_3 \right] \left(\frac{e}{7}\right)^5 =$$

$$= \left[3P_5 + 6P_1 P_4 + 3P_1^2 P_3 + 6P_3 P_2 + 3P_1 P_2^2 \right] \left(\frac{e}{7}\right)^5$$

$$- 3P_5 - 6P_1 P_4 - 3P_1^2 P_3 - 6P_3 P_2 - 3P_1 P_2^2$$

valamint az is, hogy a következő átalakítás ugyan ugye

$$p_{v_1} = \prod_{v_2=-\infty}^{+\infty} e^{\frac{x}{2(v_2\omega + (v_2+1)\omega')}^2} \prod_{v_2=-\infty}^{+\infty} \left(1 - \frac{x}{2v_2\omega + (v_2+1)\omega'}\right) e^{\frac{x}{2v_2\omega + (v_2+1)\omega'}}$$

Erősebbre az alakra hatjuk a 10) önszerűsít, ugyanis

$$\prod_{v_2=-\infty}^{+\infty} e^{\frac{x}{2(v_2\omega + (v_2+1)\omega')}^2} = e^{\frac{1}{2} \left(\frac{x}{2\omega}\right)^2 \sum_{v_2=-\infty}^{+\infty} \frac{1}{\left(v_2 + \frac{v_2+1}{2} \frac{\omega'}{\omega}\right)^2}} = e^{\frac{1}{2} \left(\frac{x}{2\omega}\right)^2 \frac{(\frac{\pi}{2})^2}{\cos^2 \frac{1}{2} \pi}}$$

210
36
36
282

$$\frac{\sin D}{\sqrt{\left(1 - 2 \frac{l}{r} \cos D + \frac{l^2}{r^2}\right)^3}} = \frac{\left(1 - 2 \frac{l}{r} \cos D + \frac{l^2}{r^2}\right)^{\frac{3}{2}} \cos D - 2 \sin D \frac{3}{2} \frac{l}{r} \sin D \sqrt{1 - 2 \frac{l}{r} \cos D + \frac{l^2}{r^2}}}{\left(\right)^3}$$

$$\left(1 - 2 \frac{l}{r} \cos D + \frac{l^2}{r^2}\right) \cos D - 3 \frac{l}{r} \sin^2 D = 0$$

$$\cos D - 2 \frac{l}{r} \cos^2 D + \frac{l^2}{r^2} \cos D - \frac{l}{r} \sin^2 D = 0$$

$$- 2 \frac{l}{r} \sin^2 D$$

$$\left(1 + \frac{l^2}{r^2}\right) \cos D - 2 \frac{l}{r} - \frac{l}{r} \sin^2 D = 0$$

$$\left(1 + \frac{l^2}{r^2}\right) \cos D - 2 \frac{l}{r} - \frac{l}{r} + \frac{l}{r} \cos D = 0$$

$$\frac{l}{r} \cos^2 D + \left(1 + \frac{l^2}{r^2}\right) \cos D - 3 \frac{l}{r} = 0$$

$$\cos D = \frac{-\left(1 + \frac{l^2}{r^2}\right) + \sqrt{\left(1 + \frac{l^2}{r^2}\right)^2 + 4 \cdot 3 \frac{l^2}{r^2}}}{2 \frac{l}{r}} \quad \frac{l}{r} = 0,3$$

$$\frac{l}{r} = \frac{1}{3}$$

$$\cos D = \frac{-\left(1 + \frac{1}{9}\right) + \sqrt{\left(\frac{10}{9}\right)^2 + 12 \frac{1}{9}}}{2 \frac{1}{3}} = \frac{-\frac{10}{9} + \sqrt{\frac{100}{81} + \frac{108}{81}}}{\frac{2}{3}}$$

$$= -\frac{5}{3} + \sqrt{\frac{52}{9}}$$

$$\cos D = \frac{2,2111}{3} = 0,73703$$

$$= \frac{1}{3}(-5 + \sqrt{52}) = \frac{1}{3}(-5 \pm 7,211)$$

$$D = 42^\circ 31' 15''$$

$$= -\frac{1}{3} 12,211 + \frac{1}{3} 2,211$$

$$dF = \frac{27M \sin^3 \delta}{r^2} \cos \delta \left\{ 3 \cos \delta \cdot \left(\frac{L}{r}\right) + \left(\frac{15}{2} \cos^3 \delta - \frac{9}{2} \cos \delta + \cos^3 \delta\right) \left(\frac{L}{r}\right)^3 + \right.$$

$$\left. + 3 \left(\frac{63}{8} \cos^5 \delta - \frac{630}{22} \cos^3 \delta + \frac{5 \cdot 63}{8 \cdot 21} \cos \delta + \frac{5}{2} \cos^5 \delta - \frac{3}{2} \cos^3 \delta + \frac{9}{4} \cos^5 \delta - \frac{9}{4} \cdot \frac{2}{3} \cos^3 \delta + \frac{9}{4} \cdot \frac{1}{9} \cos \delta \right) \left(\frac{L}{r}\right)^5 \right.$$

$$= \frac{27M \sin^3 \delta}{r^2} \cos \delta \left\{ 3 \cos \delta \cdot \left(\frac{L}{r}\right) + \left(\frac{12}{2} \cos^3 \delta - \frac{9}{2} \cos \delta\right) \left(\frac{L}{r}\right)^3 + 3 \left(\left[\frac{63}{8} + \frac{5}{2} + \frac{9}{4}\right] \cos^5 \delta - \left[\frac{630}{22} + \frac{3}{2} + \frac{9}{4} \cdot \frac{2}{3}\right] \cos^3 \delta + \left[\frac{5 \cdot 63}{8 \cdot 21} + \frac{9}{4} \cdot \frac{1}{9}\right] \cos \delta \right) \left(\frac{L}{r}\right)^5 \right.$$

$$\frac{63}{8} + \frac{5}{2} + \frac{9}{4} = \frac{63 + 20 + 18}{8} = \frac{101}{8}$$

$$\frac{630}{22} + \frac{3}{2} + \frac{9}{4} \cdot \frac{2}{3} = \frac{315}{11} + \frac{3}{2} + \frac{3}{2} = \frac{315}{11} + 3 = \frac{315 + 33}{11} = \frac{348}{11}$$

$$\frac{5 \cdot 63}{8 \cdot 21} + \frac{9}{4} \cdot \frac{1}{9} = \frac{5 \cdot 3}{8} + \frac{1}{4} = \frac{15 + 2}{8} = \frac{17}{8}$$

$$dF = \frac{27M \sin^3 \delta}{r^2} \cos \delta \left\{ 3 \cos \delta \cdot \left(\frac{L}{r}\right) + \frac{1}{2} (17 \cos^3 \delta - 9 \cos \delta) \left(\frac{L}{r}\right)^3 + \frac{3}{8} (101 \cos^5 \delta - 348 \cos^3 \delta + 17 \cos \delta) \left(\frac{L}{r}\right)^5 \right\}$$

$$101x^5 - 348x^3 + 17x = 0$$

$$x = \frac{94 + \sqrt{94^2 - 4 \cdot 17 \cdot 101}}{202} = \frac{94 + \sqrt{1968}}{202} = \frac{47 + \sqrt{492}}{101}$$

$$x = \frac{47 \pm 22,181}{101} = \frac{69,181}{101}, \frac{24,819}{101}$$

$$\begin{array}{r} 94 \times 94 \\ 846 \\ 376 \\ \hline 8836 \\ 6868 \\ \hline 1968 \end{array}$$

$$\begin{array}{r} 17 \ 17 \\ 17 \ 17 \times 4 \\ \hline 6868 \end{array}$$

$$\begin{array}{r} 269,181 = 2,839987 \\ 2101 = 2,004321 \\ \hline 9 \cos^5 \delta = 0,917833 - 1 \end{array}$$

$$\begin{array}{r} 24,819 = 1,394785 \\ 2,004321 \\ \hline 0,390464 - 1 \\ \cos^3 \delta = 0,695232 - 1 \end{array}$$

$$\delta_1 = 34^\circ 9' 41''$$

$$\delta_2 = 60^\circ 16' 59''$$

$$ax^2 + bx + c = 0$$

$$x = -\frac{b \pm \sqrt{b^2 - 4ac}}{2}$$

$$= -\frac{2}{2} \pm \sqrt{\left(\frac{2}{2}\right)^2 - c}$$

$$\begin{array}{r} 280 : 143 = 19 \\ 143 \\ 1370 \\ 1283 \\ \hline 830 \end{array}$$

$$\begin{array}{r} 29 = 0,954243 \\ 212 = 1,230449 \\ \hline 101 \delta_3 = 0,223294 - 1 \end{array}$$

$$\delta_3 = 58^\circ 2' 45''$$

$$\cos \delta = 0,861892 - 1$$

$$\delta = 43^\circ 19' 50''$$

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$$62,9 \cdot 0,0719512 - 62,9 \cdot 0,0000446862 \frac{\kappa_2}{\kappa_1} = 42,9 \cdot 0,0775295 + 42,9 \cdot 0,0000264448 \frac{\kappa_2}{\kappa_1}$$

$$\begin{array}{r} 62,9 = 1,798651 \\ 0,857038-2 \\ \hline 0,655689 \end{array}$$

$$\begin{array}{r} 742,9 = 1,632457 \\ 0,489467-2 \\ \hline 0,521924 \end{array}$$

$$\begin{array}{r} 1624 = 1,798651 \\ 0,650173-5 \\ \hline 0,448824-3 \end{array}$$

$$\begin{array}{r} 742,9 = 1,632457 \\ 0,422739-5 \\ \hline 0,054896-3 \end{array}$$

$$\begin{array}{r} 4,5257 \\ 3,3260 \\ \hline 1,1997 \end{array}$$

$$\begin{array}{r} 0,0028108 \\ 0,011345 \\ \hline 0,0039453 \end{array}$$

$$1,1997 = 0,0039453 \frac{\kappa_2}{\kappa_1}$$

$$\frac{\kappa_2}{\kappa_1} = \frac{1,1997}{0,0039453}$$

$$\begin{array}{r} 51,7997 = 0,079073 \\ 0,0039453 = 0,590074-3 \\ \hline 2,482996 \end{array}$$

$$\frac{\kappa_2}{\kappa_1} = 2,482996$$

$$\frac{\kappa_2}{\kappa_1} = 304,1$$

$$\left| \frac{\kappa_1}{\tau} \right| \begin{array}{r} 6,1 \\ 4,2 \\ \hline 2,9 \end{array} \quad \begin{array}{r} 6,1 \times 4,2 \\ 252 \\ \hline 252 \end{array}$$

$$\begin{array}{r} 6,2 \\ 3,1 \times 5 \\ \hline 1,55 \end{array}$$

$$\begin{array}{r} 27,105 \\ \hline 13,5 \end{array}$$

$$\begin{array}{r} 6,9 \times 4,2 \\ 27,98 \\ \hline 28,98 \end{array}$$

$$\begin{array}{r} 9h. \quad 51,7 \\ \quad \quad 48,6 \end{array}$$

$$\begin{array}{r} 12h. \quad 4m. \quad 48,6 \\ 9h. \quad 54m. \quad 51,7 \\ \hline 2h. \quad 9m. \quad 56,9 \end{array}$$

$$\begin{array}{r} 9h. \quad 54m. \quad 51,7 \\ 12h. \quad 4m. \quad 48,6 \\ \hline 1h. \quad 59 \quad 57,5 \end{array}$$

$$\begin{array}{r} 10h. \quad 4m. \quad 51,5 \\ 12h. \quad 4m. \quad 48,6 \\ \hline 1h. \quad 59 \quad 57,1 \end{array}$$

$$\begin{array}{r} 7200 \\ 540 \\ \hline 56,9 \\ 389,6,9 : 13 = 599,76 \\ 65 \\ 129 \\ 117 \\ \hline 126 \\ 117 \\ \hline 99 \\ 91 \\ \hline 80 \end{array}$$

$$\begin{array}{r} 3600 \\ 3540 \\ \hline 57,3 \\ 7197,3 : 22 = 599,775 \\ 60 \\ 119 \\ 108 \\ \hline 117 \\ 108 \\ \hline 93 \\ 84 \\ \hline 90 \end{array}$$

$$T = 599,775 = \pi \sqrt{\frac{\kappa_1}{\tau}} \quad \frac{T}{2\kappa_1} = \frac{\pi^2}{\tau^2} \quad \frac{T}{2\kappa_1} = 0,0000274362$$

$$\begin{array}{r} \sqrt{T} = 2,777988 \\ \tau = 1,555699 \end{array}$$

$$\begin{array}{r} \pi^2 = 0,994300 \\ \sqrt{T}^2 = 5,555976 \\ \tau^2 = 0,438324-5 \end{array}$$

$$\begin{array}{r} 2M = 192608 \\ 2N = 4,983628 \end{array}$$

$$\begin{array}{r} 2\tau^2 = 3,111398 \\ 2M = 0,549722-2 \end{array}$$

$$\begin{array}{r} 301030 \\ \hline 5,284658 \end{array}$$

$$\begin{array}{r} 2M = 3,284658 \\ \frac{\tau^2}{2M\tau} = 0,265064-7 \end{array}$$

$$23 = \frac{42,9}{3846}$$

$$\begin{array}{r} 742,9 = 1,632457 \\ 3846 = 3,585009 \\ \hline 0,047848-2 \end{array}$$

$$\begin{array}{r} 2\epsilon_3 = 0,047448-2 \\ 0,312512-9 \\ \hline 0,766136-2 \end{array}$$

$$\begin{array}{r} 5 \frac{\kappa_2}{\kappa_1} = 2,482996 \\ 650173-5 \\ \hline 0,133169-2 \end{array}$$

$$\begin{array}{r} 0,0135884 \\ 0,0719512 \\ \hline 0,0583628 \end{array}$$

$$30,0583 = \frac{0,766136-2}{0,546376-8}$$

$$\epsilon f = 0,000000704$$

$$0,0000000352$$

$$21,195303 = 0,077478$$

$$1,195303 \sin \delta_2 =$$

$$\delta_1 = 43^\circ 18' 50''$$

$$\tau \varepsilon_1 = \frac{47M \sin \delta_1}{r^2} \left[\frac{3 \cos \delta_1}{r} \int l' \alpha_m + (-) \int l'' \alpha_m + (+) \int l''' \alpha_m \right]$$

$$\left(\frac{\tau}{k}\right) \varepsilon_1 = \frac{47M \sin \delta_1}{r^2} \left[\frac{3 \cos \delta_1}{r} + (-) \frac{k_2}{k_1} + (+) \frac{k_3}{k_1} \right]$$

$$r = 35,95$$

$$l = 12,0$$

$$M = 96504$$

$$\begin{array}{r} 44550 \\ 44700 \\ \hline 98250 \\ 1946 \\ \hline 96304 \end{array}$$

$$\left(\frac{\tau}{k}\right) 59,5 =$$

$$\left(\frac{\tau}{27Mk} r^2\right) \varepsilon_1 = \frac{3 \sin 2\delta_1}{r} - 1,216031 \frac{k_3}{k_1} \cos \delta_1 \quad \delta_1 = 43^\circ 18' 50''$$

$$2\delta_1 = 86^\circ 37' 40''$$

$$\left(\frac{\tau r^2}{27Mk}\right) \varepsilon_2 = 3 \frac{\sin 2\delta_2}{r} + 1,094264 \frac{1}{r^3} \frac{k_2}{k_1} 2 \sin \delta_2 \quad \delta_2 = 34^\circ 8' 41''$$

$$2\delta_2 = 68^\circ 17' 22''$$

$$\left(\frac{\tau r^2}{27Mk}\right) \varepsilon_3 = 3 \frac{\sin 2\delta_3}{r} - 1,195303 \frac{1}{r^3} \frac{k_2}{k_1} 2 \sin \delta_3 \quad \delta_3 = 60^\circ 16' 59''$$

$$2\delta_3 = 120^\circ 33' 58''$$

$$90^\circ + 30^\circ 33' 58''$$

$$\begin{array}{r} 3,11141 \\ 1244 \\ \hline 127 \end{array}$$

~~3 sin 2δ₂~~

$$3 \sin 2\delta_1 = 0,499086-1$$

$$\begin{array}{r} 477121 \\ 0,476207 \\ \hline 1,555699 \\ 0,920508-2 \end{array}$$

$$3 \sin 2\delta_2 = 0,968045-1$$

$$\begin{array}{r} 477121 \\ 0,445166 \\ \hline 1,555699 \\ 0,889467-2 \end{array}$$

$$3 \sin 2\delta_3 = 0,999020-1$$

$$\begin{array}{r} 477121 \\ 0,412757 \\ \hline 1,555699 \\ 0,889467-2 \\ 0,856442-2 \end{array}$$

$$1,216031 = 0,084945$$

$$3 \sin \delta_1 = 0,836321-1$$

$$\begin{array}{r} 0,301030 \\ 0,222296 \\ \hline 2,278495 \\ 0,443801-8 \end{array}$$

$$1,094264 = 0,039122$$

$$3 \sin \delta_2 = 0,999020-1$$

$$\begin{array}{r} 0,301030 \\ 0,749284-1 \\ \hline 0,089336 \\ 4,667097 \\ \hline 0,422239-5 \end{array}$$

$$21,195303 = 0,077478$$

$$3 \sin \delta_3 = 0,938762-1$$

$$\begin{array}{r} 301030 \\ 0,317270 \\ \hline 4,667097 \\ \hline 0,650173-5 \end{array}$$

$$\left(\frac{\tau r^2}{27Mk}\right) \varepsilon_1 = 0,0832737 - 0,0000000277847 \frac{k_3}{k_1} \quad \varepsilon_1 = 59,5$$

$$\left(\frac{\tau r^2}{27Mk}\right) \varepsilon_2 = 0,0775295 + 0,0000264448 \frac{k_2}{k_1} \quad \varepsilon_2 = 61,9$$

$$\left(\frac{\tau r^2}{27Mk}\right) \varepsilon_3 = 0,0719512 - 0,0000446862 \frac{k_2}{k_1} \quad \varepsilon_3 = 42,9$$

Ajopuori sufa: 48550 } lentomat
 49400 }

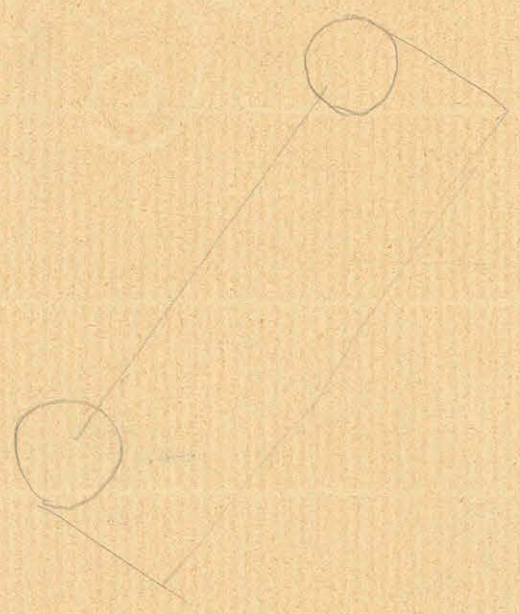
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Skalatawot 389,6 am -

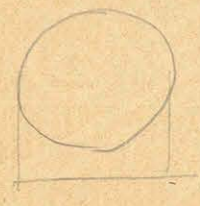
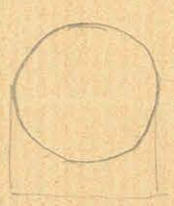
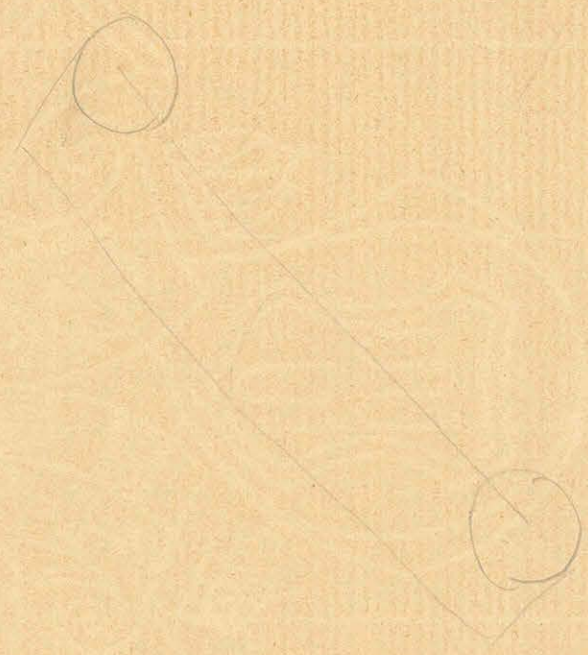
9,83
 9,88
 19,71
 9,5
 71,8
 35,9



43°	91,6 am.
34°	91,6
26°	91,5
46°	91,6
62°	91,6
67°	91,6



26°	91,4
34°	91,5 am.
43°	91,4
46°	91,5
62°	91,5
67°	91,5



1917
 1916
 19165

1917
 1918
 1917

$$\lambda = 745x^3 - 1067x^2 + 427x - 41 = 0$$

$$x = y + \frac{1067}{3 \cdot 745}$$

$$\lambda = 745 \left(\frac{1067}{3 \cdot 745}\right)^3 - 1067 \left(\frac{1067}{3 \cdot 745}\right)^2 + 427 \left(\frac{1067}{3 \cdot 745}\right) - 41 +$$

$$+ \left(3 \cdot 745 \left(\frac{1067}{3 \cdot 745}\right)^2 - 2 \frac{1067}{3 \cdot 745} + 427\right)y + 745y^3$$

$$y^3 + \left(3 \left(\frac{1067}{3 \cdot 745}\right)^2 - 2 \left(\frac{1067}{3 \cdot 745}\right) \frac{1067}{745} + \frac{427}{745}\right)y + \left(\frac{1067}{3 \cdot 745}\right)^3 - \frac{1067}{745} \left(\frac{1067}{3 \cdot 745}\right)^2 + 427 \frac{1067}{3 \cdot 745} - \frac{41}{745} = 0$$

$$3 \cdot 1067 = 3,028164$$

$$\frac{3,028164}{3,349277} = 0,907141$$

$$1 \frac{1067}{3 \cdot 745} = 0,678887-1 \quad 0,477406$$

$$3 \left(\frac{1067}{3 \cdot 745}\right)^2 = 0,357774-1 \quad 0,227916$$

$$1/3 = 0,477121$$

$$1/745 = 2,872156$$

$$2 \left(\frac{1067}{3 \cdot 745}\right)^3 = 0,036661-1 \quad 0,108808$$

$$12 = 0,301030$$

$$2745 = 2,872156$$

$$\frac{2,872156}{86} = 0,428874-3$$

$$\frac{0,428874-3}{678887-1} = 0,102261-3$$

$$11067 = 3,028164$$

$$\frac{3,028164}{0,135925} = 0,135925$$

$$2427 = 2,630428$$

$$1745 = 2,872156$$

$$\frac{2,872156}{0,858282-1} = 0,573155$$

$$\frac{0,573155}{0,683848} = 1,256903$$

$$\frac{1,256903}{-1,367494} = 0,110591$$

$$-0,110591$$

$$11067 = 3,028164$$

$$3745 = 2,872156$$

$$\frac{2,872156}{0,156008} = 0,156008$$

$$(-) = 0,357774-1$$

$$-0,513882-1$$

$$1 \frac{427}{745} = 0,758272-1$$

$$(-) = 0,678887-1$$

$$+ 0,432159-1$$

$$141 = 1,612784$$

$$2745 = 2,872156$$

$$-0,840628-2$$

478

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180
60

$$+ 0,108808$$

$$0,273627$$

$$+ 0,382435$$

$$- 0,381458$$

$$+ 0,000922$$

$$0,326424$$

$$0,55034$$

$$+ 0,000977$$

$$y^3 - 0,110591y + 0,000977 = 0$$

$$y^3 + py + q = 0$$

$$\frac{q}{2} = 0,0004885$$

$$1p = 0,043720-1$$

$$3p^3 = 0,087420-2$$

$$227 = 0,431364$$

$$\frac{0,431364}{0,656056-4} = 0,656056-4$$

$$2\omega\omega = 0,360832-2$$

$$\omega = 88^\circ 41' 5''$$

$$91^\circ 18' 55''$$

$$\omega + \frac{2\pi}{3} = 148^\circ 41' 5''$$

$$2\omega + \frac{4\pi}{3} = 208^\circ 41' 5''$$

$$\sqrt[3]{\frac{p}{27}} = 0,328028-2$$

$$2 \frac{q}{2} = 0,688865-4$$

$$2 \frac{q}{2} = 0,360832-2$$

$$\sqrt[3]{\frac{q}{27}} = 0,453612-1$$

$$P_1 + P_1 P_3^2 + P_1^2 P_5 + P_1^3 P_3 = P$$

39
39

$$P_7 = \frac{1 \cdot 3 \cdot 5 \cdot 7 \cdot 9 \cdot 11 \cdot 13}{1 \cdot 2 \cdot 3 \cdot 4 \cdot 5 \cdot 6 \cdot 7} \left[\cos^7 \theta - \frac{7 \cdot 5}{4 \cdot 13} \cos^5 \theta + \frac{7 \cdot 5 \cdot 3}{8 \cdot 4 \cdot 13 \cdot 11} \cos^3 \theta - \frac{7 \cdot 5 \cdot 3 \cdot 1}{8 \cdot 4 \cdot 13 \cdot 11 \cdot 9} \cos \theta \right]$$

$$P_7 = \frac{3 \cdot 11 \cdot 13}{16} \left[\cos^7 \theta - \frac{7 \cdot 3}{13} \cos^5 \theta + \frac{7 \cdot 3 \cdot 5}{11 \cdot 13} \cos^3 \theta - \frac{7 \cdot 5}{3 \cdot 11 \cdot 13} \cos \theta \right]$$

$$= \frac{429}{16} \cos^7 \theta - \frac{693}{16} \cos^5 \theta + \frac{315}{16} \cos^3 \theta - \frac{35}{16} \cos \theta$$

$$= \frac{1}{16} [429 \cos^7 \theta - 693 \cos^5 \theta + 315 \cos^3 \theta - 35 \cos \theta]$$

$$P = \frac{1}{16} [429 \cos^7 \theta - 693 \cos^5 \theta + 315 \cos^3 \theta - 35 \cos \theta]$$

$$+ \frac{1}{4} \cos \theta (5 \cos^3 \theta - 3 \cos \theta)^2 + \frac{1}{8} \cos^3 \theta (63 \cos^5 \theta - 70 \cos^3 \theta + 15 \cos \theta) +$$

$$+ \frac{1}{4} \cdot \frac{1}{2} (3 \cos^2 \theta - 1)^2 (5 \cos^2 \theta - 3 \cos \theta) \dots$$

$$= \frac{1}{16} [429 \cos^7 \theta - 693 \cos^5 \theta + 315 \cos^3 \theta - 35 \cos \theta]$$

$$+ \frac{1}{4} (25 \cos^7 \theta - 30 \cos^5 \theta + 9 \cos^3 \theta) + \frac{1}{8} (63 \cos^7 \theta - 70 \cos^5 \theta + 15 \cos^3 \theta) +$$

$$+ \frac{1}{8} (9 \cos^7 \theta - 6 \cos^5 \theta + 1)(5 \cos^3 \theta - 3 \cos \theta) = \frac{1}{8} (45 \cos^7 \theta - 30 \cos^5 \theta + 5 \cos^3 \theta - 27 \cos^5 \theta + 18 \cos^3 \theta - 3 \cos \theta)$$

$$+ \frac{1}{8} [45 \cos^7 \theta - 57 \cos^5 \theta + 23 \cos^3 \theta - 3 \cos \theta]$$

$$P = \frac{1}{16} [(429 + 500 + 126 + 90) \cos^7 \theta - (693 + 120 + 140 + 114) \cos^5 \theta + (315 + 36 + 30 + 46) \cos^3 \theta - (35 + 6) \cos \theta]$$

$$P = \frac{1}{16} [745 \cos^7 \theta - 1067 \cos^5 \theta + 427 \cos^3 \theta - 41 \cos \theta]$$

$$V = 745x^3 - 1067x^2 + 427x - 41 = 0$$

$$V' = 2235x^2 - 2134x + 427$$

$$\begin{array}{r} 2235x^3 - 3201x^2 + 1281x - 123 : 2235x^2 - 2134x + 427 = x \\ \underline{2235x^3 - 2134x^2 + 427x} \\ -1067x^2 + 854x - 123 \end{array}$$

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$$745y^3 + 3 \cdot 745y^2 + 3 \cdot 745y^2 + 745y^2 - 1067y^2 - 2 \cdot 1067y^2 - 1067y^2 + 427y + 427y - 41 = 0$$

$$3 \cdot 745y^2 - 1067y^2 = 0$$

$$y = \frac{1067}{3 \cdot 745}$$

$$745y^3 + \left(3 \cdot 745 \cdot \frac{1067^2}{(3 \cdot 745)^2} - 2 \cdot \frac{1067^2}{3 \cdot 745} + 427 \right) y + 745 \left(\frac{1067}{3 \cdot 745} \right)^3 - \frac{1067^3}{(3 \cdot 745)^2} + 427 \cdot \frac{1067}{3 \cdot 745} - 41 = 0$$

$$\sqrt[3]{9} = 0,453612-1$$

$$\omega = 288^\circ 41' 5'' = 91^\circ 18' 55''$$

$$\omega + \frac{2\pi}{3} = 148^\circ 41' 5'' = 151^\circ 18' 55''$$

$$\omega + \frac{4\pi}{3} = 211^\circ 18' 55''$$

$$\cos(\omega + \frac{2\pi}{3})$$

$$\frac{\omega}{3} = 30^\circ 26' 18''$$

$$\frac{\omega + 2\pi}{3} = 90^\circ 26' 18''$$

$$\frac{\omega + 4\pi}{3} = 150^\circ 26' 18''$$

$$\cos \frac{\omega + 2\pi}{3} = -\sin 26' 18''$$

$$\cos \frac{\omega + 4\pi}{3} = -\sin 60^\circ 26' 18''$$

$$\begin{array}{r} 18 \times 1,24 \\ 992 \\ \hline 22,32 \end{array}$$

$$\begin{array}{r} 1,2 \times 18 \\ 36 \\ \hline 21,6 \end{array}$$

$\int \int \int$
 $\int \int \int$
 $\int \int \int$

$$\rho \cos \frac{\omega + 4\pi}{3} = 0,439432-1$$

$$\begin{array}{r} 0,453612-1 \\ 301030 \\ \hline \end{array}$$

$$(-y_3 = 0,694024-1$$

$$\rho \cos \frac{\omega}{3} = 0,935596-1$$

$$\sqrt[3]{9} = 0,453612-1$$

$$\begin{array}{r} 0,389208-1 \\ 301030 \\ \hline \end{array}$$

$$y_1 = 0,690238-1$$

$$\rho \cos \frac{\omega + 2\pi}{3} = 0,883778-3$$

$$\sqrt[3]{9} = 0,453612-1$$

$$\begin{array}{r} 301030 \\ \hline \end{array}$$

$$2-y_2 = 0,638420-3$$

$$y_1 = +0,490047$$

$$\begin{array}{r} 0,477406 \\ \hline \end{array}$$

$$x_1 = +0,968453$$

$$y_2 = -0,004349$$

$$\begin{array}{r} 0,967453 \\ 0,477406 \\ \hline 481755 \end{array}$$

$$x_2 = +0,473057$$

$$y_3 = -0,494395$$

$$\begin{array}{r} 0,477406 \\ \hline \end{array}$$

$$x_3 = -0,016989$$

$$y_1 = +0,004349$$

$$y_2 = -$$

$$\begin{array}{r} \rho = 0,954243 \\ \rho \sqrt[3]{9} = 1,230449 \\ \hline 0,723894-1 \end{array}$$

$$\begin{array}{r} 5,3 \times 25 \\ 132,5 \\ \hline 132,5 \end{array}$$

$$\rho \cos \theta = 0,861897-1$$

$$43^\circ 7' 18'' 50''$$

$$21^\circ 39' 25''$$

$$\rho \sin 21^\circ = 0,564084-1$$

$$\begin{array}{r} 1,604226 \\ \hline 1,171310 \end{array}$$

$$14,835$$

$$|29,67|$$

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$$y^3 - 0,110591y + 0,000977 = 0$$

$$y^3 - py + q = 0$$

$$3p = 0,043720 - 1$$

$$3p^3 = 0,131160 - 3$$

$$s_{27} = \frac{1,431364}{0,699796} - 5$$

$$\sqrt[3]{\frac{p}{27}} = 0,849898 - 3$$

$$\frac{q}{2} = \frac{0,088865 - 4}{0,838967} - 2$$

$$\frac{989:30,4=33,9122}{770}$$

$$s - \cos w = 0,838967 - 2$$

$$86'' \quad 2' \quad 33''$$

$$3' \quad 57' \quad 27''$$

$$w = 92^\circ 57' 27''$$

$$\frac{w}{3} = 30^\circ 59' 09''$$

$$\cos \frac{w}{3} = \cos 56^\circ \dots$$

$$\frac{w+2\pi}{3} = 90^\circ 59' 9''$$

$$\cos \frac{w+2\pi}{3} = -\sin 59' 9''$$

$$\frac{w+4\pi}{3} = 150^\circ 59' 9''$$

$$\cos \frac{w+4\pi}{3} = -\sin 60^\circ 59' 9''$$

$$y_1 = 0,849898 - 3$$

$$y \cos \frac{w}{3} = 0,933129 - 1,$$

$$y_1 = \frac{584329 - 1}{0,517458} - 1$$

$$\sqrt[3]{y_1} = \frac{0,283299 - 1}{301030}$$

$$s \sqrt[3]{y_1} = \frac{584329}{0,584329} - 1$$

$$y \cos \frac{w+2\pi}{3} = 0,235660 - 2,$$

$$y \cos \frac{w+4\pi}{3} = 0,941760 - 1,$$

$$584329 - 1$$

$$y_2 = \frac{0,819989 - 3}{1}$$

$$1 - y_3 = \frac{0,526089 - 1}{1}$$

$$y_1 = +0,329198$$

$$+0,477406$$

$$x_1 = \frac{0,806604}{1}$$

$$y_2 = -0,006007$$

$$+0,477406$$

$$x_2 = \frac{0,470799}{1}$$

$$y_3 = -0,335806$$

$$477406$$

$$x_3 = +0,141600$$

$$s \cos \vartheta_1 = 0,906660 - 1$$

$$s \cos \vartheta_2 = 0,672835 - 1$$

$$s \cos \vartheta_3 = 0,151063 - 1$$

$$s \cos \vartheta_1 = 0,953330 - 1$$

$$s \cos \vartheta_2 = 0,836418 - 1$$

$$s \cos \vartheta_3 = 0,575532 - 1$$

$$\vartheta_1 = 26^\circ 5' 20''$$

$$\vartheta_2 = 46^\circ 40' 28''$$

$$\vartheta_3 = 67^\circ 53' 44''$$

$(\cos \vartheta_1 + \cos \vartheta_2 + \cos \vartheta_3)$
 0,14
 0,14

$$\frac{D_1}{2} = 13^\circ 2' 40''$$

$$\frac{D_2}{2} = 23^\circ 20' 14''$$

$$\frac{D_3}{2} = 33^\circ 56' 52''$$

$$s \frac{D_1}{2} = 0,353541-1$$
$$1902 = \frac{1,604226}{0,957767}$$

$$s \frac{D_2}{2} = 0,597841-1$$
$$\frac{1,604226}{1,202067}$$

$$s \frac{D_3}{2} = 0,746975-1$$
$$\frac{1,604226}{1,351201}$$

90,73

9,07

15,92

22,45

Ch = 18,14

31,84

44,90

$$745x^3 - 1067 \cos x^2 + 427x - 41 = 0$$

$x_1 \quad x_2 \quad x_3$

$$\begin{aligned} 1745 &= 2,872156 \\ 1x_1 &= 0,906660-1 \\ 1x_1^3 &= 0,819980-1 \\ \hline &2,592136 \end{aligned}$$

$$\begin{aligned} 1067 &= 3,028164 \\ 1x_1^2 &= 0,813320-1 \\ \hline &2,841984 \end{aligned}$$

$$\begin{aligned} 427 &= 2,630428 \\ 0,906660-1 & \\ \hline &2,538088 \end{aligned}$$

$$\begin{aligned} &390,963 \\ &344,420 \\ \hline &235,383 \\ &235,200 \\ \hline &+ 0,18 \\ \hline &694,200 \\ &41, \end{aligned}$$

$$\begin{aligned} &2,872156 \\ &0,018505-1 \\ \hline &6,890661 \end{aligned}$$

$$\begin{aligned} &3,028164 \\ &0,345670-1 \\ \hline &2,323834-2 \end{aligned}$$

$$\begin{aligned} &2,630428 \\ &0,72835-1 \\ \hline &2,303263 \end{aligned}$$

$$\begin{aligned} &77,743 \\ &201,031 \\ \hline &278,774 \\ &277,50 \\ \hline &+ 1,2 \end{aligned}$$

$$\begin{aligned} &236,50 \\ &41 \end{aligned}$$

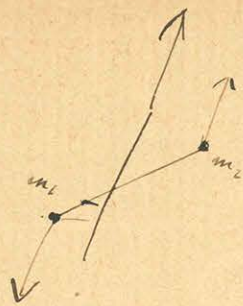
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$$\begin{aligned} &2,872156 \\ &0,453189-3 \\ \hline &0,325345 \end{aligned}$$

$$\begin{aligned} &3,028164 \\ &0,302126-2 \\ \hline &1,330290 \end{aligned}$$

$$\begin{aligned} &2,630428 \\ &151063-1 \\ \hline &1,281491 \end{aligned}$$

$$\begin{aligned} &2,115 \\ &60,463 \\ \hline &62,578 \\ &62,4 \\ \hline &21,394 \\ &41 \end{aligned}$$



$$\left. \begin{aligned} m_1 \frac{dx_1}{dt} &= X_1 + 1 \frac{\partial f}{\partial x} \\ m_2 \frac{dx_2}{dt} &= -X_1 + 1 \frac{\partial f}{\partial x} \end{aligned} \right\}$$

$$f = (x_1 - x_2)^2 - \mathcal{E}$$

Arstal

Arstaf Knepe

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Arstal méte

vályú

8,5
4,25

36,0 cm.

35,95
4,25
40,20

12,0 cm.

Arstal méte

$$34^\circ 8' 41'' = 0,5934$$

23
2
0,5959

$$0,5959 \times 28,9$$

11918
47672
53631
1722151

$$17,22 \text{ cm} = 34^\circ 8' 41''$$

$$a + b \cos 2\delta$$

$$a - b = 30$$

$$a = 75$$

$$a - b =$$

$$z(a + b \cos 2\delta) = k$$

$$a + b \cos 2\delta = \frac{1}{3}$$

$$a - b = \frac{1}{30}$$

$$a = \frac{1}{75}$$

$$b = \frac{1}{75} - \frac{1}{30} = \frac{2-5}{150} = -\frac{3}{150} = -\frac{1}{50}$$

$$\delta = 25^\circ$$

$$2\delta = 50^\circ$$

$$a \cos 50^\circ = 0,64$$

$$\frac{0,64}{50} =$$

$$\cos 50^\circ = \frac{64}{100} = \frac{32}{50}$$

2200

33

$$\cos 2\delta = \frac{32}{50}$$

$$\frac{1}{3} = \frac{32}{100}$$

$$\frac{1}{100}$$

$$\frac{1}{75} - \frac{1}{50} \cos 2\delta$$

2500

$$\frac{1}{75} - \frac{32}{2500} = \frac{33-32}{2500} = \frac{1}{2500}$$

$$a + b \cos 2\delta = k$$

$$a - b = \frac{k}{30}$$

$$a = \frac{k}{75}$$

$$b = -\frac{k}{50}$$

$$a + b \cos 2\delta = k \left(\frac{1}{75} - \frac{1}{50} \cos 2\delta \right) = \frac{k}{25} \left(\frac{1}{3} - \frac{1}{2} \cos 2\delta \right)$$

$$\cos 2\delta = \cos 50$$

$$a - b \cos 2\delta = \frac{k}{2500}$$

$$a + b \cos 2\delta = \frac{k}{25}$$

$$a - b = \frac{k}{32,5}$$

$$a = \frac{k}{75,7}$$

$$b = -k \left(\frac{1}{32,5} - \frac{1}{75,7} \right)$$

32,5	75,7
1,5119	1,8791
0,4881-2	0,1209-2
0,03077	0,01321

$$a - b = 0,03077 k$$

$$a = 0,01321 k$$

$$b = 0,01756 k$$

32,5

200

33

1

5

12

0,643 x 176
4501
3858
113168

$$z = (0,01321 - 0,01756 \cos 2\delta) k$$

~~0,00256~~

$$\frac{z}{k} = 0,01321 - 0,01756 \cos 2\delta$$

$$0,00256 = 0,01321 - 0,01756 \cos 2\delta$$

$$\frac{0,01065}{0,01756} = \cos 2\delta$$

0,02735
24452
0,28283 - 1

$$2\delta =$$

$$52^\circ 40''$$

$$\delta = 26^\circ 20''$$

0,01321

1132

0,00189

0,00189

0,01756

$$1756:189 = 9,3$$

1701
550

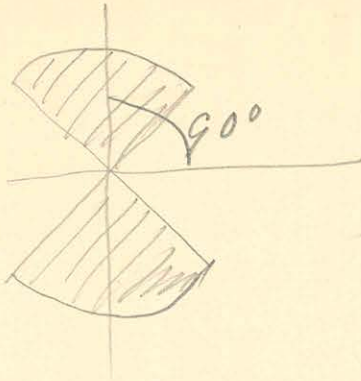
(9,3)

$$37,3 \times 9,3$$

$$0,1756:1321 = 1,329$$

4350
3963
3870
2642
12280

1892 majus 7



9h. 51m.	199,25
52m.	199,0

10h. 9m. 40s. 167,0 foudul

10m.	167,8
12	169,3
13	172,1
14	176,6
15	180,9
16	186,9
17	193,2
18	200,5
19	208,2
20	216,2
21	224,6
22	232,8
23	240,8
24	248,6
24m.	27,8
	252,0
	253,0
	35,9
	254,0
	44,2
	255,0
	52,4
	256,0
25m.	0,8
26m.	262,8
27m.	268,2
28	274,0
29	278,5
30	282,2
31	284,9
32	286,9
32,5	287,5
33,0	287,9
33m. 20s.	288,1
33 40m.	288,15
34m. 0m.	288,15
34m. 20m.	288,05
" 40	287,9
35m.	287,2
36m.	286,4
37	284,2
38	282,2
39	279,6
40	276,4
41	273,0

foudul

42m.		269,4
43		265,8
44		262,1
45		258,6
45m.	44,6	256,0
46m.	1,8	255,0
	20,0	254,0
	39,0	253,0
	57,8	252,0

48m.		249,0
49		246,2
50		244,0
51		242,05
52		240,5
53		239,3
54		238,2
54,5		238,3
55	0m.	238,2
55,	20m.	238,15
55	40m.	238,15
56	0m.	238,15
56	20	238,2
56	40	238,3

fordul

11h.

57m.		238,5
58		239,1
59		240,0
60		241,1
1m		242,4
2		243,95
3		245,4
4		247,1
5		248,9
6		250,4
7		252,0
7m.	0m.	252,0
	38,5	253,0
8m.	19,0	254,0
9m.	3,0	255,0
10m.	49,5	256,0
11m.		257,3
12m.		258,2
13		259,05
14		259,8
15		260,1
15,5		260,25
16	0m.	260,35
	20	260,4
	40	260,5
17	0	260,5
	20	260,5
	40	260,5

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fordul

18m.	0	260,45	
	20	260,35	
19m.		260,2	
20		259,9	
21		259,5	
22		259,0	
23		258,2	
24		257,8	
25		256,9	
26		256,1	
27		255,4	
28		254,8	
29		254,0	
30		253,2	
31		252,8	
32		252,1	
33		251,8	
34		251,1	
35		250,9	
36		250,8	
37		250,4	
38		250,3	
38,5		250,25	} foudal
39,0		250,25	
39,5		250,25	
40,0		250,25	
40,5		250,3	
41		250,4	
42		250,7	
43		250,9	
44		250,1	
45		251,5	
46		251,85	
47		252,1	
48		252,5	
49		252,9	
50		253,1	
51		253,4	
52		253,8	
53		254,0	
54		254,2	
55		254,4	
56		254,7	
57		254,8	
58		254,9	
59		254,95	} foudal
60		254,95	
1		254,95	
2		254,9	

12h.

<u>Földtömeg</u>	<u>ρ</u>	<u>Egyenlet</u>
167,0	0,413	252,7
288,15	0,447	253,5
238,15	0,448	253,5
260,5	0,459	253,5
254,25		
254,95		

átlagérték 253,5-ű:

10h.	24m.	40,1	21m.	49,4
	46m.	29,5	21m.	29,2
	7m.	58,7	21m.	38,8
	29m.	37,5	21m.	37,5
	51m.	15,0		

átlagérték 21m. 38,7°.

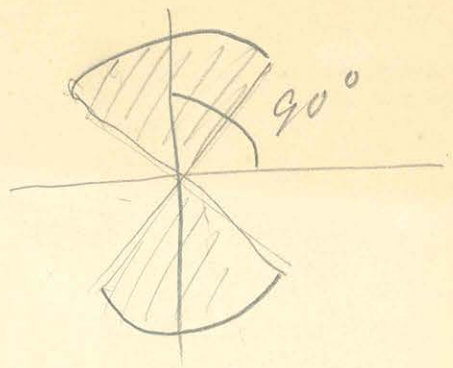
$$T = \frac{\pi^2}{\sqrt{\frac{g}{L} - \alpha^2}} \quad \text{és} \quad D = e^{-\alpha T} \quad \alpha = 0,0006200$$

Ebből

$$\left(\frac{T}{\pi}\right) = 0,0000062371$$

$$\left(\frac{g}{L}\right) = 100330$$

1892 majni 10.



11h.	44m.	49,80.	250,0
		57,6	251,0
	45m.	5,8	252,0
		14,2	253,0
		22,4	254,0
		30,5	255,0
	38,8	256,0	
	54m.	30.	<u>288,7</u> fudul

12h.	6m.	31,8	256,0
		49,0	255,0
	7m.	7,4	254,0
		25,8	253,0
		45,0	252,0
	8m.	5,2	251,0
25,0		250,0	

238,5 fudul

16m. 30.

26m.	249,55
27m.	251,1
28m.	252,2
29	254,15
30	255,6
31	256,9

38m.

0.

260,9 fudul

47m.

48

49

50

51

52

256,35

255,75

254,95

254,2

253,6

252,95

59m.

0.

250,8 fudul

9m.

10m.

11m.

12

13

14m.

15m.

252,95

253,15

253,6

253,95

254,15

254,4

254,7

1h. 21m. 0.

255,25 fudul

Integriert.

288,7	50,2	7007	6495	446	1802	5405	34,7	254,0
238,5	22,4	3502	6541	450	1614	1888	15,4	253,9
260,9	10,1	8043	6441	441	1587	8456	7,0	253,9
250,8	4,45	6484						
255,25								

Abweichung 253,9-u.

11h.	45m.	21,6.	47,6	47,6
	7m.	9,2	44,7	44,7
	28m.	53,9	36,1	36,1
	50m.	30,0	22,4	22,4
	11m.	52,4		150,8 : 4 = 37,7

2,45
 0,25
 1,50 : 2,45 = 6,1
880
 300

Längen d. T = 21m. 37,7 = 1297,7.

$d = 0,448$

$d = 0,65128 - 1$
 $= -0,34872$

$\pi = 0,63778 - 1$

$T = 3,01317$

2,75095

$d = 0,54248 - 1$

$\alpha = 0,29153 - 4$

$d = 0,58306 - 7$

$\pi^2 = 0,99430$

$T^2 = 6,22634$

0,26796 - 6

$\frac{\pi^2}{T} = 0,0000058609$

$\alpha^2 = 1,0000003829$

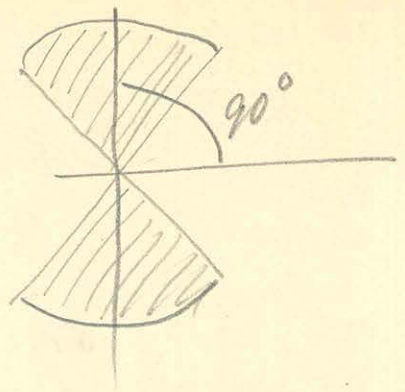
$\frac{T}{\pi} = 0,0000062438$

$\frac{\pi}{T} = 160160$

$\frac{T}{\pi} = 0,29545 - 6$

$\frac{K}{T} = 5,20455$

1892 majun 11.



10h.

28m.	44,2	250,0
	52,0	251,0
	59,8	252,0
		253,0
29m.	71,8	254,0
	16,2	255,0
	24,2	256,0
	32,5	
38m.	102	<u>289,2</u> feet

		256,0
50m.	27,6	258,0
	45,4	254,0
51m.	3,6	253,0
	22,2	252,0
	40,9	251,0
	1,0	250,0
52m.	20,3	<u>238,3</u> feet

11h.

0m.	02	
		251,2
11m.		252,9
12m.		254,3
13m.		255,85
14m.		
21m.	30.	<u>261,0</u> feet

33m.		254,9
34m.		254,1
35		253,6
36		252,95
43m.	30.	<u>250,8</u> feet

53m.		253,0
54		253,25
55		253,7
56		254,0
57		254,2
58		254,55
		<u>255,3</u> feet

Intézkedések:

289,2									
238,3	50,9	7067	6493	446	1602	5465	35,2	254,0	
261,0	22,7	3560	6526	449	1611	1949	15,7	254,0	
250,8	10,2	0086	6446	441	1587	8499	7,1	253,9	
255,3	4,5	6532							

		Almennyi itó	254,0 m	
16l.	29m.	154.	50,1	50,1
	51	5,5	37,3	37,3
11h.	12m.	42,8	41,2	41,2
	34m.	24,0	16,0	16,0
	56m.	20,2	16,0	144,6 : 4 = 36,2

Legnagyobb = 21m. 36,2 = 1296,20

$\sigma = 0,447$

$350 = 0,63778 - 1$
 $PT = 3,11268$
2,75046

$3\pi^2 = 0,99430$
 $5T^2 = 6,22536$
0,86894 - 6

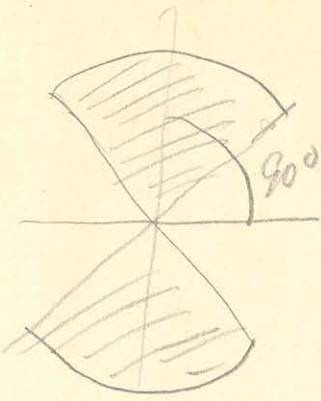
$99d = 0,54248 - 1$
 $8d = 0,79202 - 4$
 $8d^2 = 0,58404 - 7$

$\frac{\pi^2}{T^2} = 0,0000058741$
 $d^2 = 0,0000003837$
 $\frac{1}{K} = 000,0062588$

$\frac{1}{K} = 0,79343 - 6$
 $9 \frac{K}{T} = 5,20657$

$\frac{K}{T} = \underline{100900}$

1892. maji 9.



10h.	23m.	194,0	
	24	201,3	
	25	209,1	
	26	217,3	
	28	234,0	
	29	242,0	
	30	249,8	
	30m.	9,2	251,0
		17,2	252,6
		25,0	253,0
		33,0	254,0
		41,4	255,0
		49,6	256,0
	32m.		264,0
	33		270,2
	36m.		283,4
	38m.		288,0
39m.	20.		289,0
	40.		289,05
40m.	0.		289,0
51m.	0.		288,5
51m.	42,5		256,0
52m.	0,2		255,0
	18,5		254,0
	36,8	18,5	253,0
	55,0		252,0
53m.	15,0		251,0
	34,0		252,0
	59m.		239,4
11h.	0m.		238,8
	1m.	0.	238,4
	1m.	20.	238,3
		40.	238,3
	2m.	0.	238,3
		20.	238,4
		40.	238,6
3m.	0.		238,8

found

found

11h.	11m.	249,15	
	12	250,9	
	13	252,4	
	14	254,0	
	15	255,3	
	16	256,8	
	20m.	0.	260,1
	21m.		260,65
	22m.	0m.	260,9
		20.	260,95
		40.	260,95
23m.	0.	261,0	} <u>fordul</u>
	20.	261,0	
	40	260,95	
	60	260,95	
24m.	20	260,9.	
33m.		255,8	
34m.		255,0	
35		254,25	
36		253,7	
37		253,0	
38		252,4	
39		252,0	
43m.	20.	250,85	
	40.	250,8	
44m.	0.	250,8	} <u>fordul</u>
	20.	250,8	
	40.	250,8	
45m.	0	250,8	
	20.	250,85	
51m.		251,9	
52m.		252,2	
53.		252,6	
54		252,95	
55		253,2	
56		253,6	
57		253,95	
58		254,1	
59		254,4	
60		254,65	
11h.	1m.	254,9	
12h.	2m.	255,05	
		<u>255,25</u> <u>fordul</u>	

MAGYAR
TUDOMÁNYOS AKADÉMIA
KÖNYVTÁRA

Fordulopunkta:

289,05	50,75	7055							
238,3	22,7	3560	3495	6505	0,447	0,1605	5450	35,08	254,0
261,0	10,2	0080	2424	6526	0,449	0,1611	1949	15,7	254,0
250,8	4,45	6484	2602	6398	0,436	1572	8514	7,1	253,9
255,25						1605	4879	3,1	253,9

<u>D</u>	<u>Epsilon</u>
0,447	254,0
0,449	254,0
0,436	253,9
	253,9

Abmessen des 253,9 u.

10l.	30m.	32,2	21m.	48,1	48,1
	52m.	20,3	21m.	36,6	36,6
	13m.	56,9	21m.	41,3	41,3
	35m.	38,2	21m.	13,8	21,8
	58m.	51,4	21m.	21,8	142,8
		0,0			36,9
					37,0

60: 16 = 3,3
 $\frac{58}{20}$
 $\frac{70}{40}$

60: 5,5 = 10,9
 $\frac{55}{500}$ 21,8

60: 2,5 = 20,4
 $\frac{50}{10}$ 10,2

60: 7,7 = 7,8
 $\frac{75}{250}$ 8,6
 $\frac{248}{50}$

Lege wo = 21m. 37,0 s. = 1297,0 s.

$$T = \frac{\pi R}{\sqrt{\frac{T}{R} - \alpha^2}}$$

$$D = e^{-\alpha T}$$

$\alpha = 0,000691$

$\ln D = 0,65128 - 1$
 $= -0,34872$

$1\pi^2 = 0,99430$
 $1T^2 = 6,22588$
 $\frac{0,26842 - 6$

$\ln e = 0,63778 - 1$
 $\ln T = 3,11294$
 $\frac{2,25072$

$\frac{\pi^2}{T^2} = 0,0000058670$
 $\alpha^2 = 0,0000003833$

$\ln D = 0,54248 - 1$
 $\ln \alpha = 0,29126 - 4$
 $\ln \alpha^2 = 0,58352 - 7$

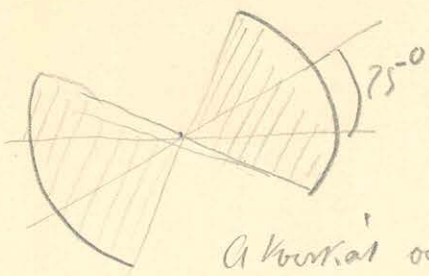
$\frac{\pi}{R} = 0,0000062503$

$\frac{1}{R} = 0,79590 - 6$

$\frac{1}{T} = 5,20410$

$\frac{R}{T} = 100000$

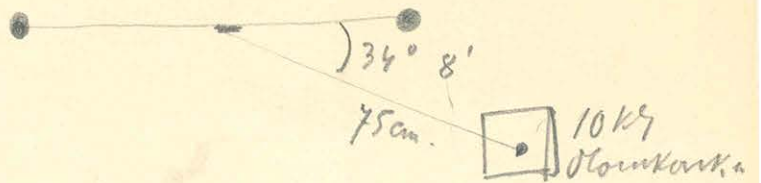
Aprili 27.



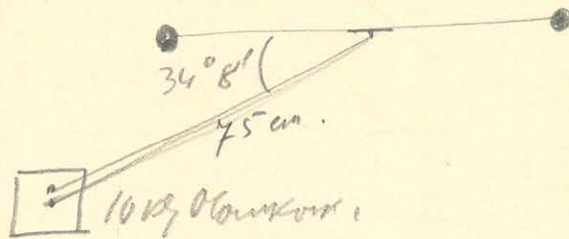
A kőszékai odaszív este 7h. 15m. ker.

I alkalom

11h. 0m. 273,0



II alkalom

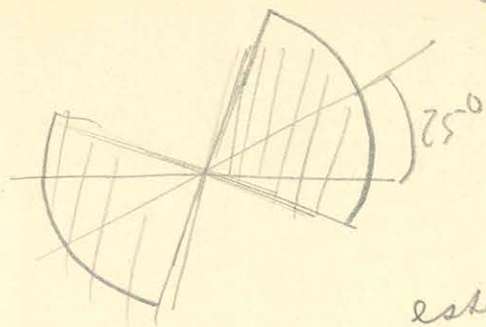


11h.	10m.	270,6
	20m.	265,6 -
	30m.	259,1
	40	252,2 -
	50	246,2
	60m.	241,2 -
12h.	10m.	237,2
	20	233,8 -
	30	231,0
	40	229,0 -
	50	227,4
	60	226,2
1h.	10	225,3
	20	224,2
	30	224,2
	40	223,9
	50	223,5
	60	223,2
2h.	10m.	223,0

I alkalom

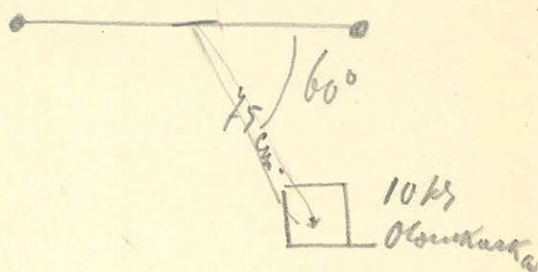
reggel	5h.	40m.	273,4
		45	273,6
		50	275,3

Árnyékok 28



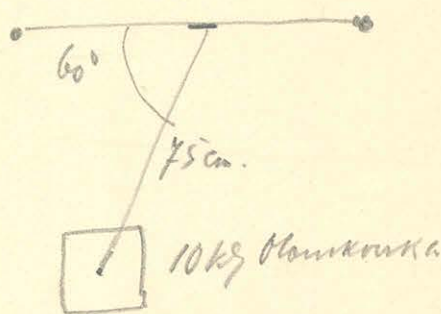
I. állás

este 8h. 0m. 268,0
10h. 0m. 269,8



II. állás

este 10h.	10m.	268,1
	20m.	265,0
	30	261,4
	40	258,0
	50	254,9
11h.	0m.	252,2
	10m.	250,0
	20	248,0
	30	246,2
	40	245,5
	50	244,2
12h.	0	244,0
	10	243,3
	20	242,9
	30	242,7
	40	242,3 + 0,2
	50	242,2 + 0,2
1h.	0	242,3
	10m.	242,2
	20m.	242,2



I. állás

4h. 30m. 269,95
40m. 270,2

Unmixed April 27

$t_i = 20m = 1200s.$

Expensif. April = 222,02

$s_0 = 43,4$
 $s_1 = 30,5$
 $s_2 = 19,5$
 $s_3 = 11,6$

$s_0 - s_1 = 12,9$
 $s_1 - s_2 = 11,0$
 $s_2 - s_3 = 7,9$

$s_0 - s_2 = 27,9$

$s_0 - s_1 = 1,11059$
 $s_1 - s_2 = 1,04139$
 $s_2 - s_3 = 0,89763$
 $s_0 - s_2 = 1,37840$

$(s_0 - s_1) - (s_2 - s_3) = 3,1$
 $131 = 0,49136$
 $s_0 = 1,63749$
2,12885
 134,539

$s_0 - s_1 = 1,11059$
 $s_2 - s_3 = 0,89763$
2,00822

$s_1 - s_2 = 1,04139$
 $s_0 - s_2 = 1,37840$
2,41979

$s_0 [(s_0 - s_1) - (s_2 - s_3)] = 134,539$

$(s_0 - s_1)(s_2 - s_3) = 101,912$

236,451

$(s_1 - s_2)(s_0 - s_2) = 262,900$
-26,449

$(s_0 - s_1) - (s_1 - s_2) = 1,9$
 $51,9 = 0,27875$
 $s_0 = 1,63749$
1,91624

$s_0 - s_1 = 1,11059$
 $(s_0 - s_1)^2 = 2,22118$

$s_0 [(s_0 - s_1) - (s_1 - s_2)] = 82,460$

$(s_0 - s_1)^2 = 166,412$
-83,952

$e^{-\alpha t_i} = \sqrt{\frac{26,449}{83,952}} = u$

$u = 0,74919 - 1$

$s_1 = 1,07788$

$s_1 - s_2 = 1,04139$

$s_1^2 = 2,15576$

$0,30103$

$s_1 = 14,3140$

$u^2 = 0,74919$

$s_2 = 152,483$

2,09161

-9,343

$s_1 - s_2 = 1,04139$

30103

$u = 0,74919$

1,09161

$u^2(s_1 - s_2) = 2,18322$

$9,343 = 0,97049$

$\sqrt{9,343} = 0,48525$

$\sqrt{9,343} = 3,0502$

$\sqrt{9,343} = 0,48525$

$22(s_1 - s_2)u = 1,09161$

0,39364 - 1

0,2475

0,97254 - 1

0,78728 - 2

0,93873

0,6127

1,00000

$s_0 = 26,449 = 1,42241$
 $s_0 = 83,952 = 1,92403$
 $e^{-\alpha t_i} = 0,49838 - 1$

$-\alpha t_i \ln e = 0,74919 - 1$

$s_0 \ln e =$

$-\alpha t_i \ln e = -0,25081$

$s_0 + s_1 = 0,39935 - 1$
 $63778 - 1$
 $0,26157 - 1$

$s_1 = 3,07918$
 $s_0 = 0,68239 - 4$

$\alpha = 0,0004813$

$s_0 - s_1 = 1,11059$
 $u^2 = 0,49838 - 1$
0,60898

$(s_0 - s_1)u^2 = 4,0642$

$s_1 - s_2 = 7,9$
11,9642

$(s_0 - s_1)u^2 + (s_2 - s_3) = 11,9642 = s_1$

$s_1 = 1,07788$

$22(s_1 - s_2)u = 1,09161$
0,98627 - 1

+0,9689

$e^{+t_i \sqrt{\alpha^2 - \omega^2}} = 0,9689 + i 0,2475$
 $= \cos t_i \sqrt{\omega^2 - \alpha^2} + i \sin t_i \sqrt{\omega^2 - \alpha^2}$

$\cos t_i \sqrt{\omega^2 - \alpha^2} = 0,98627 - 1$

$t_i \sqrt{\omega^2 - \alpha^2} = 14^{\circ}.33 = 14^{\circ} 19' 48''$ $\alpha^2 = 0,36478 - 7$

$t_i \sqrt{\omega^2 - \alpha^2} = 0,24435$

553
23

$t_i \sqrt{\omega^2 - \alpha^2} = 0,25011$

$2t_i \sqrt{\omega^2 - \alpha^2} = 0,39813 - 1$

$s_1 = 3,07918$
0,31895 - 4

$\ln \omega^2 - \alpha^2 = 0,63790 - 8$

$\omega^2 - \alpha^2 = 4,000000043441$

$\alpha^2 = 4,00000023162$

$\omega^2 = 0,00000027506$

$\omega^2 = 0,0000002751$

$$s = e^{-\alpha t} (a_1 e^{+t\sqrt{\alpha^2 - \omega^2}} + a_2 e^{-t\sqrt{\alpha^2 - \omega^2}})$$

$$t=0 \quad 2s_0 = a_1 + a_2$$

$$t=t_1 \quad 2s_1 = e^{-\alpha t_1} (a_1 e^{+t_1\sqrt{\alpha^2 - \omega^2}} + a_2 e^{-t_1\sqrt{\alpha^2 - \omega^2}})$$

$$t=2t_1 \quad 2s_2 = e^{-2\alpha t_1} (a_1 e^{+2t_1\sqrt{\alpha^2 - \omega^2}} + a_2 e^{-2t_1\sqrt{\alpha^2 - \omega^2}})$$

$$t=3t_1 \quad 2s_3 = e^{-3\alpha t_1} (a_1 e^{+3t_1\sqrt{\alpha^2 - \omega^2}} + a_2 e^{-3t_1\sqrt{\alpha^2 - \omega^2}})$$

$$e^{-\alpha t_1} = \sqrt{\frac{s_0 [(s_2 - s_2) - (s_2 - s_3)] + (s_0 - s_1)(s_2 - s_3) - (s_1 - s_2)(s_0 - s_2)}{s_0 [(s_0 - s_1) - (s_2 - s_2)] - (s_0 - s_1)^2}} = u$$

$$e^{+t_1\sqrt{\alpha^2 - \omega^2}} = \frac{(s_1 - s_3) + (s_0 - s_1)u^2 + \sqrt{[(s_1 - s_3) + (s_0 - s_1)u^2]^2 - 4(s_1 - s_2)u^2}}{2(s_1 - s_2)u^2} = x$$

$$a_1 = 2 \frac{(s_1 - s_2)x - (s_0 - s_1)u}{(ux - 1)(1 - x^2)u}$$

$$a_2 = 2x^2 \frac{(s_1 - s_2) - (s_0 - s_1)ux}{(u - x)(x^2 - 1)u}$$

$$\begin{aligned}
a_1 + a_2 &= 2 \left[\frac{(s_1 - s_2)x - (s_0 - s_1)u}{ux - i} + \frac{ux(s_0 - s_1) - (s_1 - s_2)}{u - x} x^2 \right] \frac{1}{u(1 - x^2)} \\
&= \frac{2}{u(1 - x^2)} \frac{(s_1 - s_2)[x(u - x) - x^2(ux - i)] + (s_0 - s_1)[ux^3(ux - i) - u(u - x)]}{(u - x)(ux - i)} \\
&= 2 \frac{(s_1 - s_2)(ux - x^2 - ux^3 + x^4) + (s_0 - s_1)(u^2x^4 - ux^3 - u^2 + ux)}{u(1 - x^2)(u - x)(ux - i)} \\
&= 2 \frac{(s_1 - s_2)ux(1 - x^2) + (s_0 - s_1)[u^2x^2(x^2 - i) + u^2(x^2 - i) + ux(x^2 - i)]}{u(1 - x^2)(u - x)(ux - i)} \\
&= 2 \frac{(s_1 - s_2)u(1 - x^2)x + (s_0 - s_1)u(1 - x^2)(ux^2 + x + u)}{u(1 - x^2)(u - x)(ux - i)} \\
&= 2 \frac{(s_1 - s_2)x - (s_0 - s_1)(ux^2 - x + u)}{(u - x)(ux - i)} = a
\end{aligned}$$

$$a(u - x)(ux - i) = 2(s_1 - s_2)x - 2(s_0 - s_1)(ux^2 - x + u)$$

$$s_0 - s_1 = d_1$$

$$s_1 - s_2 = d_2$$

$$s_2 - s_3 = d_3$$

$$x^2 + 2ax + 1 = 0$$

$$x = \frac{-2a}{2}$$

$$x = -a + \sqrt{a^2 - 1}$$

$$a(u - x)(ux - i) = 2d_2x - 2d_1(ux^2 - x + u)$$

$$a(u^2x - ux^2 - u + x) = 2d_2x - 2d_1(ux^2 - x + u)$$

$$x = \frac{a^2}{(-a) + i\sqrt{1 - a^2}}$$

~~a~~

$$(-au + 2d_1u)x^2 + (au^2 + a - 2d_2 - 2d_1)x + (-au + 2d_1u) = 0$$

$$(au - 2d_1u)x^2 - (a + au^2 - 2(d_1 + d_2))x + (au + 2d_1u) = 0$$

$$(au - 2d_1u)\left(x^2 + \frac{1}{x}\right) = a(1 + u^2) - 2(d_1 + d_2)$$

$$u(a - 2d_1)\left(x + \frac{1}{x}\right) = a(1 + u^2) - 2(d_1 + d_2)$$

$$ud_2\left(x + \frac{1}{x}\right) = d_3 + d_1u^2$$

$$\frac{a - 2d_1}{d_2} = \frac{a(1 + u^2) - 2(d_1 + d_2)}{d_3 + d_1u^2}$$

~~a d_2 + 2d_1^2 u~~

$$(a - 2d_1)d_3 - 2d_1^2u^2 = ad_2 + ad_1u^2 - 2d_2(d_1 + d_2)$$

$$(ad_2 + 2d_1^2)u^2 = (a - 2d_1)d_3 - ad_2 + 2d_2(d_1 + d_2)$$

$$u = \sqrt{\frac{(a - 2d_1)d_3 - ad_2 + 2d_2(d_1 + d_2)}{ad_2 + 2d_1^2}}$$

$$u = \sqrt{\frac{[a - 2(s_0 - s_1)](s_2 - s_3) - a(s_1 - s_2) + 2(s_1 - s_2)(s_0 - s_1)}{a(s_1 - s_2) + 2(s_0 - s_1)^2}}$$

I minner. April 27.

$t_1 = 20m = 12000.$

$S_0 = 30,5$

$S_1 = 19,5$

$S_2 = 11,6$

$S_3 = 6,8$

12. 20m.

$S_0 - S_1 = 11,0$

$S_1 - S_2 = 8,9$

$S_2 - S_3 = 4,8$

$S_0 - S_1 = 1,04139$

$S_1 - S_2 = 0,89763$

$S_2 - S_3 = 0,68124$

$S_0 - S_3 = 1,27646$

$(S_1 - S_2) - (S_2 - S_3) = 3,1$

$3 \cdot 3,1 = 0,49136$

$1 S_0 = 1,48430$

$1,97566$

94550

$52,800$

$147,350$

$149,307$

$-1,957$

$S_0 - S_1 = 1,04139$

$S_1 - S_2 = 0,68124$

$1,22263$

$(S_0 - S_1) - (S_2 - S_3) = 3,1$

94550

$357,209$

$-262,659$

94550

$(S_0 - S_1) = 121,000$

$26,450$

$S_1 - S_2 = 0,89763$

$S_2 - S_3 = 1,27646$

$2,12409$

$S_0 - S_1 = 0,27646$

$S(S_1 - S_2) = 2,55292$

$e^{-at_1} = \sqrt{\frac{1,957}{262,659}}$

$S_0 - S_1 = 1,04139$

$1 S_0 - S_1 = 2,08278$

$e^{-at_1} = \sqrt{\frac{1,957}{26,450}}$

$1 e^{-at_1} = 2u = 0,43458 - 1$

$71,957 = 0,29159$

$426,450 = 1,42243$

$S e^{2at} = 0,86916 - 2$

$S e^{-at_1} = 0,43458 - 1$

$at_1 S_0 = 0,56542$

$S_0,56 = 0,75237 - 1$

$63778 - 1$

$0,11459$

$S t_1 = 3,07918$

$1 \alpha = 0,03541 - 3$

$\alpha = 0,001085$

$S \alpha^2 = 0,07082 - 6$

$S_0 - S_1 = 1,04139$

$1 u^2 = 0,86916 - 2$

$0,91055 - 1$

$(S_0 - S_1) u^2 = 0,81386$

$S_2 - S_3 = 4,8$

$5,21386$

$(S_0 - S_1) u^2 + S_2 - S_3 = 5,21386 - S_1$

$\sqrt{8,714} = 0,47011$

$R = 4,24375$

$S R = 0,63324$

$S N = 0,63324$

$0,04288 = S e^{t \sqrt{\alpha^2 - \omega^2}}$

$S_1 = 0,71716$

$S_1 = 1,43432$

$S_2 = 0,30103$

$S_3 = 0,89763$

$1 u = 0,43458 - 1$

$1 2(S_1 - S_2) u = 0,63324$

$1 4(S_1 - S_2) u^2 = 1,26648$

$S_1^2 = 27,184$

$4(S_1 - S_2) u^2 = 18,470$

$8,714$

$88,714 = 0,94022$

$2 \sqrt{8,714} = 0,47011$

$1 0,04288 = 0,63225 - 2$

$S S e = 0,63778 - 1$

$0,99447 - 2$

$S_1 = 3,07918$

$1 \sqrt{\alpha^2 - \omega^2} = 0,91529 - 5$

$S(\alpha^2 - \omega^2) = 0,83058 - 9$

$\alpha^2 - \omega^2 = 0,000000006770$

$\alpha^2 = 0,0000011771$

$\omega^2 = 0,0000011094$

$S_1 = 5,21386$

$\sqrt{8,714} = 2,95296$

$R = 2,26196$

$S R = 0,35449$

$S N = 0,63324$

$0,72125 - 1 = S e^{-t \sqrt{\alpha^2 - \omega^2}}$

$R = 8,16576$

$S R = 0,91200$

$S N = 0,63324$

$0,22976 = S e^{t \sqrt{\alpha^2 - \omega^2}}$

$S_0,27 = 0,44678 - 1$

$63778 - 1$

$0,86900 - 1$

$3,07918$

$1 \sqrt{\alpha^2 - \omega^2} = 0,72982 - 4$

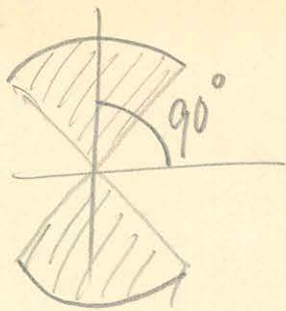
$S(\alpha^2 - \omega^2) = 0,45903 - 7$

$\alpha^2 - \omega^2 = 0,00000028810$

$\alpha = 0,0000011771$

$\omega^2 = 0,00000008890$

$\omega^2 = 0,00000008890$

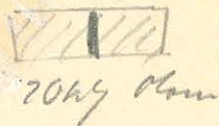


Eizükönyrségi mérések Május 12

I. mérés



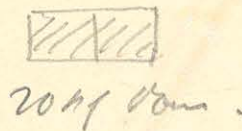
7h. 30m. 270,0
8h. 6m. 270,0



II. mérés



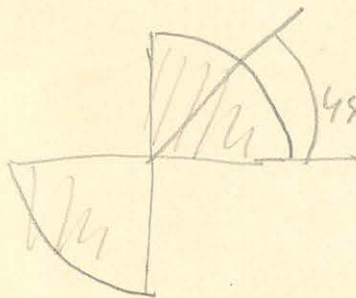
11h. 30m. 237,5
40m. 237,5



I. mérés

3h. 30m. 269,9
40m. 269,9

Május 13



A k. körhöz tartozó nyílvánosság helyen, mind az előbbi mérésekénél.

I. mérés

est. 9h.	45m.	293,9	fordul
	55	294,0	
10h.	5	294,25	
	15	294,65	
	25	294,8	
	35m.	294,9	fordul

MAJSTER
TUDOMÁNYOS AKADÉMIA
KÖRNYETI

II. mérés

11h.	56m.	220,0	
12h.	6m.	219,8	
	16	219,3	
	26	219,9	
	36	218,5	
	43m.	218,4	fordul
1h.	25m.	219,8	
	35m.	219,8	

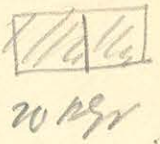
I. mérés

5h.	0m.	293,6
	10m.	293,6

Magis 14

I' ad a'

11h.	20m.	294,6
	30	294,6



20 125x

II' ad a'

15m.	219,0
25m.	219,0

90°, 45° ad a' unibol:
 $\frac{b}{a} = -1,329$

I' ad a'

12h.	30m.	294,8
	40	294,8

I' ad a'

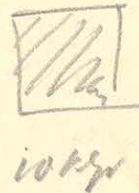
ad a' 5h.	0m.	275,6
	10m.	275,6



10 125x

II' ad a'

9h.	30m.	277,7
	40m.	277,7



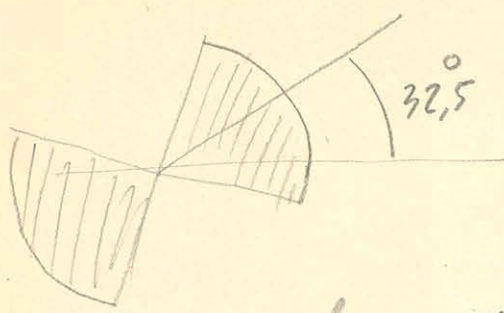
10 125x

37,75

I' ad a'

2h.	30m.	275,3
	40	275,3

Május 17



		<u>II. oldal</u>
10h.	10m.	211,3
	20m.	211,3
	30m.	211,3

17 ~~10 kg~~
10,895 kg.

45°, 32,5°-os szögű
 $\frac{b}{a} = -1,369$

		<u>I. oldal</u>
12h.	50m.	300,5
1h.	10	300,5
	20	300,5

		<u>II. oldal</u>
4h.	30	211,5
	40	211,5

89,1

Május 18

		<u>II. oldal</u>
10h.	15m.	246,9
	35m.	246,9



3 kg kenyér.
7,252 kg.

		<u>I. oldal</u>
12h.	50m.	264,1
1h.	10m.	264,1

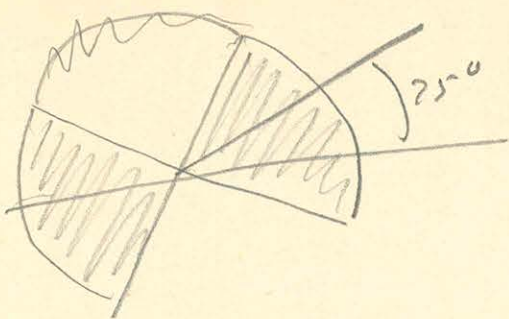


3 kg.
7,252 kg.

		<u>II. oldal</u>
4h.	30m.	246,8
	40	246,8

17,2

Májusi 19



~~2,252 kg~~
2,252 kg

I. osztály

10h.	35m.	231,3
	45m.	231,1
	55	231,0
	5	230,9
11h.	15	230,9

II. osztály



~~2,252 kg~~
2,252 kg

1h.	55	280,9
2h.	5	281,1
	15	281,3
	25	281,6
3h.	35m.	283,2
	45	283,2

32,5°, 25° átl. arányból:

$$\frac{b}{a} = -1,333$$

Májusi 20

II. osztály

csk 9h.	35	285,0
	45	285,0

I. osztály

12h.	70m.	232,5
	30m.	232,5

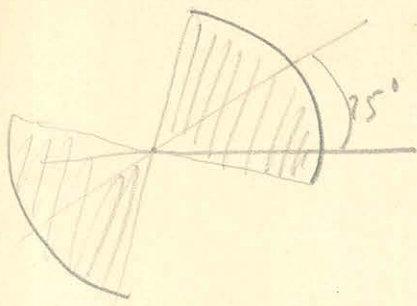
II. osztály

3h.	55m.	281,7
4h.	30	283,0
5h.	0m.	283,9

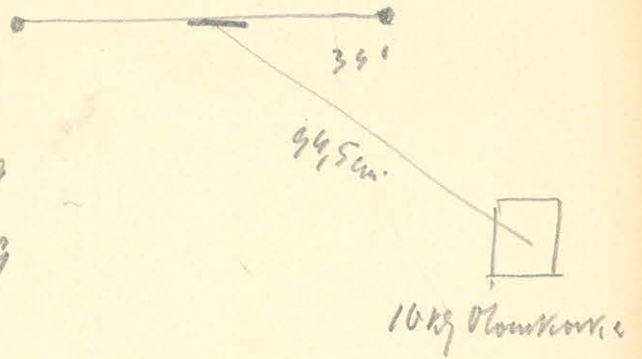
MAGYAR
TUDOMÁNYOS AKADÉMIA
KÖNYVTÁRA

1892 napján

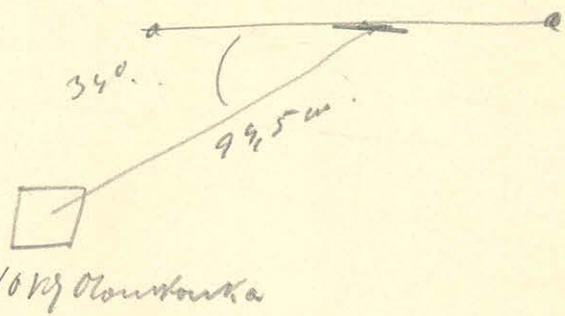
I. oldal



este g. 30m 280,9
 40m 280,9



II. oldal



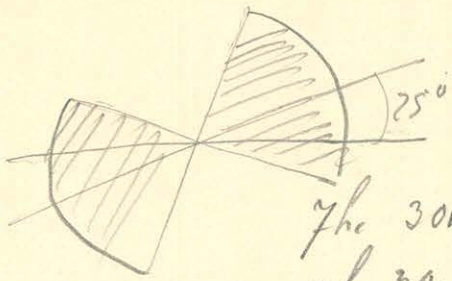
12h. 40m 256,3
 50 256,3
 0m 256,2

I. oldal

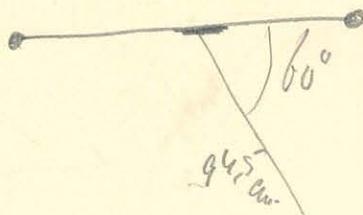
vonal 4h. 30m 277,9
 40m 277,9

1892 majun'4

I arci



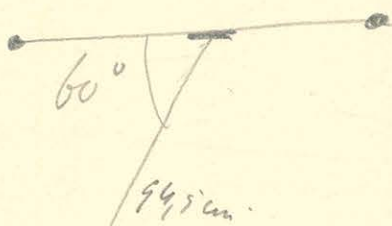
7h. 30m.	279,0
9h. 30m.	276,9
40m.	276,9



1068 Blauvorka

II arci

12h. 45m.	261,1
55m.	261,1



1642 Blauvorka

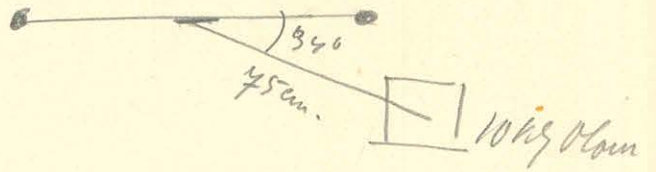
I arci

4h. 30m.	276,2
----------	-------

Mayin 5

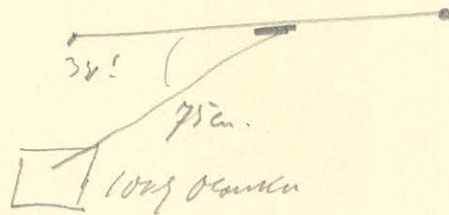
I alai

gh. 30m. 296,9



II alai

lh. 25m. 243,4
35m. 243,3



I alai

5h. 0m. 297,6
10h. 297,9

$0,394940$
 $0,749284-1$

 $0,144224$
 $0,111114$

 $0,033110$

$0,172352$
 $0,938761-1$

 $0,111114$

~~$0,749284-1$~~
 ~~$0,938761-1$~~

 6

$\frac{168}{168}$
 168

$68^{\circ} 17' 22''$

$170^{\circ} 33' 58''$
 $30^{\circ} 33' 58''$

$0,968045-1$
 $0,706333-1$

 $0,261712$

$\sin 2\delta = 0,968045-1$
 $0,477120$

 $\sin 2\delta_1 = 0,445165$

 2_1

~~$0,706333-1$~~
 ~~$0,477120$~~

 ~~$0,183454 = \sin 2\delta_2$~~

~~$0,172352$~~
 ~~301030~~

 $0,473382$

$0,144224$
 301030

 445254

$0,111114$
 301030

 $0,412144$

$0,935024-1$
 477121

 $0,412145 = \sin 2\delta_2$

MAGYAR
TUDOMÁNYOS AKADÉMIA
KÖNYVTÁRA

$$H_1, H_2 = F_1 F_2$$

$$\frac{H_1}{F_1} = \frac{F_2}{H_2}$$

$$H_2 = \frac{F_2 - F_1}{F_1}$$

$$\frac{f}{t-f}$$

$$\left(\frac{F_1}{F_2 - F_1} \right) \frac{F_1}{f-f}$$

$$\frac{f}{k-f}$$

$$\frac{(n-1)krt}{k-f}$$

$$\frac{1}{t} = \frac{1}{f} - \frac{1}{k} = k \frac{k-f}{fk}$$

$$t = \frac{fk}{k-f} \left(\frac{f}{t-f} \right)$$

$$\frac{1}{t} = \frac{1}{f} - \frac{1}{k}$$

$$t = f \frac{k}{k-f} = f \left(\frac{k-k+f}{k-f} + 1 \right)$$

$$t_1 = f \frac{f}{k_1 - f} + f$$

$$t_2 = f \frac{f}{k_2 - f} + f$$

$$t_1 - t_2 = f \left[\frac{f}{k_1} - \frac{f}{k_2} \right]$$

$$\mu(k_1 t + k_2 r) = t k - t r$$

$$\mu k t (n-1) + (n-1) k r = (n-1) t r - t r \mu$$

$$t k$$

$$\frac{1}{f} + \frac{1}{f} =$$

$$\mu k t + \mu k r = t k - t r$$

$$(n-1) t r + (n-1) k r + k r = (n-1) t r - \mu t r$$

$$\mu - 1 + (n-1) \frac{r}{t} + \frac{r}{t} = (n-1) \frac{r}{t} - \mu \frac{r}{k}$$

$$\mu = \frac{t}{k} \cdot \frac{k-r}{t+r}$$



$$S_2 = F_1$$

$$S_1 = F_2$$

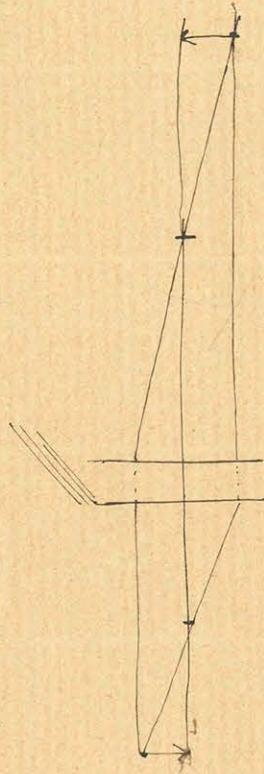


$$H_1 S_1 = b + d = F_1 S_1 - d - F_1 + d$$

$$= F_1 S_1 - F_1 = F_2 - F_1$$

$$H_2 S_2 = F_2 - F_1$$

$$H_2 S_2 - H_1 S_1 =$$



$$\frac{\mu t}{1-\mu} + \frac{t-\mu}{k} = 1$$

$$\mu + \mu \frac{r}{t} = 1 - \frac{r}{k}$$

$$\frac{\mu t}{t} + \frac{r}{k} = 1 - \mu$$

$$\frac{1}{f} + \frac{1}{f} = \frac{1}{k}$$

$$J_a : J_p = \frac{\sin \varphi_1 \cos \varphi_1}{\sin \varphi \cos \varphi} D_p^2 : P^2$$

$$J_a = \frac{y}{p} \frac{\sin \varphi_1 \cos \varphi_1}{\sin \varphi \cos \varphi} \frac{D^2}{p^2}$$

$\varphi - \varphi_1 = \alpha$
 $\varphi + \varphi_1 = \beta$

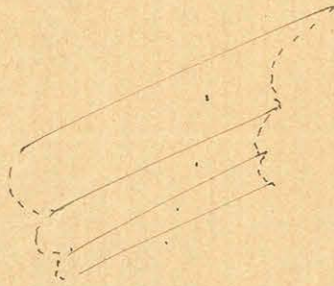
$$D_p^2 = \frac{4 \sin \varphi \cos \varphi}{\sin^2(\varphi + \varphi_1) \cos^2(\varphi - \varphi_1)} \frac{\sin \varphi_1 \cos \varphi_1}{\sin \varphi \cos \varphi} = \frac{4 \sin^2 \varphi \cos^2 \varphi}{\sin^2(\varphi + \varphi_1) \cos^2(\varphi - \varphi_1)}$$

$$\varphi = \varphi_1 \quad \varphi = \varphi_1 + \frac{\pi}{2}$$

$$[\sin \varphi \cos \varphi_1 + \sin \varphi_1 \cos \varphi]$$

$$\cos(\varphi - \varphi_1) \cos(\varphi + \varphi_1) =$$

$$J_a : J_p : J_d = P^2 \frac{\sin \varphi_1 \cos \varphi_1}{\sin \varphi \cos \varphi} \vartheta^2$$



$$J_d = \frac{y}{p} \frac{\sin \varphi_1 \cos \varphi_1}{\sin \varphi \cos \varphi} \frac{\vartheta^2}{P^2} = \frac{y}{p} \frac{4 \sin^2 \varphi \cos^2 \varphi}{\sin^2(\varphi + \varphi_1) \cos^2(\varphi - \varphi_1)} \frac{\sin \varphi_1 \cos \varphi_1}{\sin \varphi \cos \varphi}$$

$n = \frac{r}{f}$
 $n = \frac{k-2}{f}$
 $n = \frac{1}{r^2}$

$$r^2 : r^3 = \frac{1}{2}$$

$$\left(\frac{r}{r'}\right)^3 = \frac{1}{2}$$

$$r^3 = 2r'^3$$

$$r' = \sqrt[3]{2} \cdot r$$

1,26

$$\begin{array}{r} 45 \times 1,26 \\ 150 \\ \hline 450 \\ \hline 9450 \\ \hline 945 \end{array}$$

$$\begin{array}{r} 3,11 \times 41 \\ 1244 \\ 311 \\ \hline 12751 \end{array}$$

$$\begin{array}{r} 1 \text{ cm} \vartheta = 0,917833 - 1 \\ 394,5 = 1,975432 \\ \hline 1,893265 \\ \hline 78,21 \end{array}$$

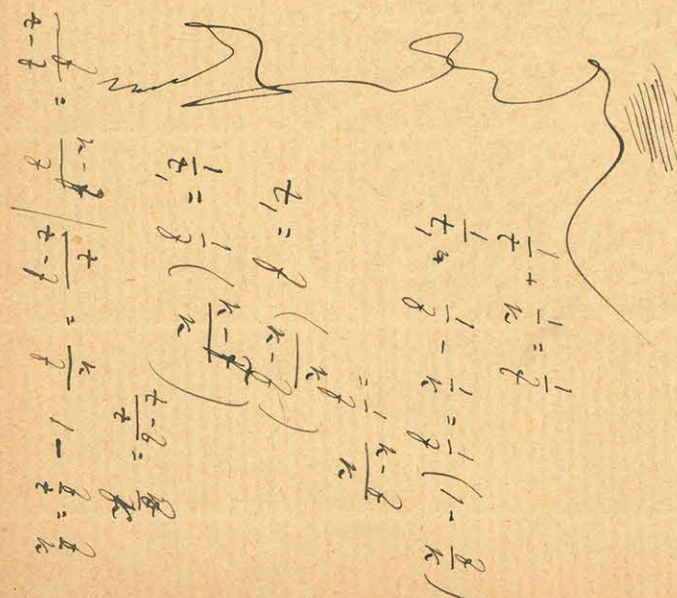
$$\begin{array}{r} 3 \text{ cm} \vartheta = 0,749184 - 1 \\ 1,975432 \\ \hline 1,224616 \\ \hline 53,04 \end{array}$$

$$\frac{J_p}{J_a} = \frac{P^2 - E_1}{E_1} = \frac{J_1 - 1}{E_1 - 1}$$

Random printing

Hand printing

Volume of gas from the ...

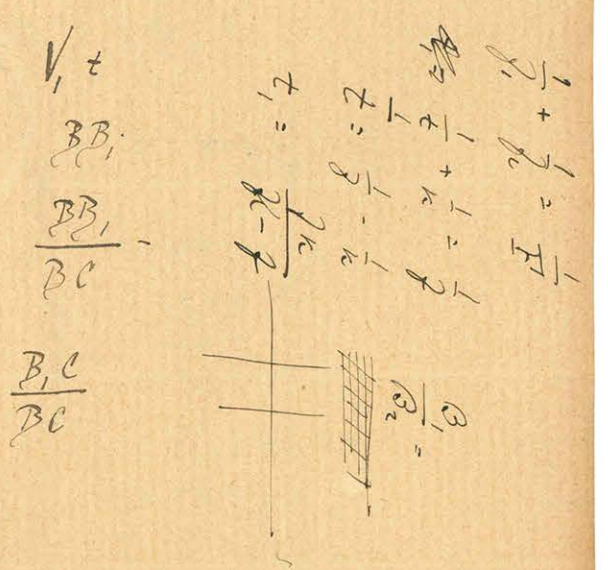


$$t_1 = \frac{1}{\beta} \left(\frac{k-1}{k} \right)$$

$$t_1 = \frac{1}{\beta} \left(\frac{k-1}{k} \right)$$

$$t_1 = \frac{1}{\beta} \left(\frac{k-1}{k} \right)$$

$$n = \frac{t-1}{\beta} = \frac{t}{\beta} - 1$$



167,0					0,8	22,5		
288,15	121,15	08332	61565	413	15014	93318	85,7	252,7
238,15	50,0	69892	65031	447	16047	53850	34,6	253,5
260,5	22,35	34928	65144	448	16077	18851	15,4	253,5
250,25	10,25	01072	66138	459	16786	84666	7,0	253,5
254,95	4,70	67210						

Observed 253,5 m.

10h.	24m.	40,1	21m. 49,4	49,4
	46m.	29,5	21m. 29,2	29,2
11h.	7m.	58,7	21m. 38,8	38,8
	29m.	37,5	21m. 37,5	37,5
	51m.	15,0m.		154,9
				38,7

$$T = 21m. 38,7s. \quad D = 0,447$$

$$T = 1298,7s.$$

$$D = e^{-\alpha^2}$$

$$2D = 0,65031 - 1$$

$$= -0,34969$$

$$1D = 0,54369 - 1$$

$$2,75129$$

$$2\alpha = 0,29240 - 4$$

$$85e = 0,63778 - 1$$

$$3T = 3,11351$$

$$2\alpha^2 = 0,58480 - 2$$

$$T = \frac{\pi}{\sqrt{\frac{L}{K} - \alpha^2}}$$

$$\left(\frac{\pi}{T}\right)^2 + \alpha^2 = \left(\frac{L}{K}\right)$$

$$5\pi^2 = 0,99430$$

$$8T^2 = \frac{6,22702}{0,29228 - 6}$$

$$\frac{\pi^2}{T^2} = 0,0000058527$$

$$\alpha^2 = 0,0000003844$$

$$\left(\frac{L}{K}\right) = 0,0000062371$$

$$2\frac{L}{K} = 0,79499 - 6$$

$$2\frac{K}{L} = 5,20509 \quad \left(\frac{K}{L}\right) = 160330$$

$$\left(\frac{K}{L}\right) = \frac{K}{L} = \tau = \tau$$

$$0,63778 - 1$$

$$69892 - 3$$

$$681$$

$$0,33675 - 3$$

$$0,00217$$

$$0,99783 - 1$$

$$0,995$$

1,005

MAGYAR
TUDOMÁNYOS AKADEMIA
KÖNYVTÁRA

$$r = 75 \text{ cm}$$

$$D_1 = 34^\circ 8' \quad D_2 = 60^\circ$$

$$\varepsilon_1 = 50,5 \quad \varepsilon_2 = 22,8$$

$$\tau_{50,5} = \frac{27M \sin D_1}{r^2}$$

$$F_1 = \frac{27M \sin D_1}{r^2} \left[\frac{2,482875}{r} \int_0^l l' \, dl' - \right]$$

4,2094

$$1,195303 \sin D_2 \cdot F_1 + 1,094264 \cdot \sin D_1 \cdot F_2 = \frac{27M \sin D_1 \sin D_2}{r^2} \left[1,195303 \cdot 2,482875 + 1,094264 \cdot 1,487145 \right]$$

$$1,195303 = 0,077478$$

$$1,094264 = 0,039122$$

$$\sin D_2 = \frac{0,938762 - 1}{0,016240}$$

$$\sin D_1 = \frac{0,749284 - 1}{0,288406 - 1}$$

$$1,038103$$

$$0,614336$$

$$1,195303 = 0,077478$$

$$1,094264 = 0,039122$$

$$2,482875 = 0,917833 - 1$$

$$\frac{472121}{0,472432}$$

$$1,487145 = \frac{0,172353}{0,211425}$$

$$2,96228$$

$$1,62233$$

$$1,459511 = 0,662296$$

$$\sin D_1 = 0,749284 - 1$$

$$\sin D_2 = 0,938762 - 1$$

$$\frac{0,350342}{2,24048}$$

$$2,24048$$

$$2,2 = 1,70329$$

$$0,01624$$

$$\frac{1,21953}{52,4}$$

$$17,1$$

$$69,5$$

$$233,0$$

$$222,5$$

$$\frac{50,5}{25,2}$$

$$247,7 \dots 50,5$$

$$296,9$$

$$243,2$$

$$53,2$$

$$26,9$$

$$270,1 \dots 53,2$$

$$\frac{22,4 \dots 3,2}{22,4 \dots 3,2}$$

MAGYAR
TUDOMÁNYOS AKADÉMIA
KÖNYVTÁRA

$$r = 94,5$$

$$\varepsilon_1 = 24,2$$

$$\varepsilon_2 = 15,8$$

$$1 \varepsilon_1 = 1,39270$$

$$0,01624$$

$$\frac{1,40894}{25,6}$$

$$9,2$$

$$35,3$$

$$1 \varepsilon_2 = 1,19866$$

$$0,78841 - 1$$

$$\frac{0,98707}{25,6}$$

$$9,2$$

$$35,3$$

$$22,4 \text{ osztásal} = 3,2$$

$$32:124 = 0,143$$

$$\text{Lombjára} = \frac{3,2}{22,4} = 0,143$$

$$\begin{array}{r} 124 \\ \underline{960} \\ 280 \\ \underline{280} \\ 0 \end{array}$$

I Kísérlet - ~~Égőanyag~~ Kőszepesítés = 247,2

$$22,4 \text{ osztásal} = \frac{3,2}{53,2} \text{ megosztás felállítás}$$

$$22,4 \text{ osztásal} = 0,0596 \text{ megosztás}$$

$$3,2:53,2 = 0,0596$$

$$\text{Lombjára} = 0,0596:22,4 = 0,00266$$

$$\begin{array}{r} 2685 \\ \underline{5150} \\ 4833 \\ \underline{3120} \end{array}$$

I Kísérlet

Kőszepesítés

I Kísérlet ~~Égőanyag~~ = 247,2

$$596:224000 = 0,00266$$

$$\begin{array}{r} 448 \\ \underline{1480} \\ 1344 \\ \underline{1360} \end{array}$$

r, D

r, D	Égőanyag, Kőszepesítés	Kőszepesítés	Correktio
r=75 D=60			
r=75 D=60	256,1	27,8	0,0
r=94,5 D=36	268,6	24,2	1,4
r=94,5 D=60	269,0	15,8	0,9

$$\begin{array}{r} 67,8 \\ \underline{42,1} \\ 112,2 \\ \underline{56,1} \end{array}$$

$$\begin{array}{r} 80,9 \\ \underline{56,2} \\ 137,1 \\ \underline{68,6} \end{array}$$

$$\begin{array}{r} 76,9 \\ \underline{61,1} \\ 138,0 \\ \underline{69,0} \end{array}$$

$$\begin{array}{r} 8,4 \times 0,00266 \\ \underline{2128} \\ 1064 \\ \underline{0,022344} \times 28 \end{array}$$

$$\begin{array}{r} 56 \\ \underline{56} \\ 616 \end{array}$$

21,3

$$\begin{array}{r} 21 \times 0,00266 \\ \underline{532} \\ 0,05586 \times 25 \\ \underline{11172} \\ 22930 \\ \underline{14} \end{array}$$

$$\begin{array}{r} 0,0559 \times 16 \\ \underline{3354} \\ 8944 \end{array}$$

MAGYAR
TUDOMÁNYOS AKADÉMIA
KÖNYVTÁRA

$D = 60^\circ$

$$\begin{array}{r}
 1P_1 = 0,695232-1 \\
 1P_3^2 = 0,285006-1 \\
 \hline
 0,980238-2+
 \end{array}$$

$$\begin{array}{r}
 1P_1^2 = 0,390464-1 \\
 1P_5 = 0,987861-2+ \\
 \hline
 0,348325-2+
 \end{array}$$

$$\begin{array}{r}
 1P_2^2 = 0,238190-2 \\
 1P_3 = 0,642503-1- \\
 \hline
 0,879693-3-
 \end{array}$$

$$\begin{array}{r}
 P_1 P_3^2 = 0,095552 \\
 P_1^2 P_5 = 0,022301 \\
 P_7 = 0,222099 \\
 + 0,339952 \\
 P_2^2 P_3 = -0,007580 \\
 + 0,332372
 \end{array}$$

$$\begin{array}{r}
 1P_1^2 = 0,390464-1 \\
 1P_5 = 0,997050-2 \\
 \hline
 0,387514-2
 \end{array}$$

$$\begin{array}{r}
 P_1 P_3^2 = 0,095552 \\
 P_1^2 P_5 = 0,024407 \\
 P_7 = 0,214554 \\
 \hline
 0,334513 \\
 P_2^2 P_3 = -0,007580 \\
 + 0,326933
 \end{array}$$

$D = 34^\circ$

$$\begin{array}{r}
 1P_1 = 0,917833-1+ \\
 1P_3^2 = 0,489996-2+ \\
 \hline
 0,407829-2+
 \end{array}$$

$$\begin{array}{r}
 1P_1^2 = 0,835666-1+ \\
 1P_5 = 0,548869-1- \\
 \hline
 0,380535-1-
 \end{array}$$

$$\begin{array}{r}
 1P_2^2 = 0,444348-1+ \\
 1P_3 = 0,244998-1+ \\
 \hline
 0,689346-2+
 \end{array}$$

$$\begin{array}{r}
 P_1 P_3^2 = +0,025576 \\
 P_2^2 P_3 = -0,048904 \\
 + 0,024480
 \end{array}$$

$$\begin{array}{r}
 P_1^2 P_5 = -0,240179 \\
 P_7 = -0,336632 \\
 - 0,526811 \\
 + 0,024480 \\
 - 0,502331
 \end{array}$$

$D = 60^\circ$

$D = 34^\circ$

$$\begin{array}{r}
 1 \text{ cnd } D = 0,695232-1 \\
 13 = 0,477121 \\
 \hline
 0,172353 \\
 3 \text{ cnd } D = 1,487145
 \end{array}$$

$$\begin{array}{r}
 1 \text{ cnd } D = 0,917833-1 \\
 \text{cnd } D = 0,827625 \\
 3 \text{ cnd } D = 2,482875
 \end{array}$$

$$D = 43^\circ 18' 50''$$

$$1P_1 = 1P_1 = 0,861892-1$$

$$3P_1^3 = 0,585691-1$$

$$P_3 = -0,128400$$

$$P_1^3 = 0,385204$$

$$3P_3 = -0,385200$$

$$P_1^3 + 3P_3 = 0,000000$$

$$P_5 = -0,400309$$

$$3P_1^2 = 0,423294-1+$$

$$2P_3 = 0,108565-1-$$

$$\underline{0,477121}$$

$$0,309480-1-$$

$$2P_1 = 0,861892-1$$

$$2P_2^2 = 0,932044-2$$

$$\underline{0,477121}$$

$$0,226062-1+$$

$$\underline{-1,404857}$$

$$3P_5 = -1,200927$$

$$3P_1^2 P_3 = -0,203930$$

$$3P_1 P_2^2 = +0,188826$$

$$\underline{-1,216031}$$

$$3P_5 + 3P_1^2 P_3 + 3P_1 P_2^2 = -1,216031$$

$$D = 60^\circ 16' 59''$$

$$2P_1 = 0,695232-1$$

$$5P_1^3 = 0,085696-1$$

$$P_1^3 = +0,121814$$

$$3P_3 = -1,312102$$

$$\underline{-1,195303}$$

$$3P_3 + P_1^3 = -1,195303$$

$$3P_1^2 = 0,390464-1$$

$$2P_3 = 0,642503-1-$$

$$\underline{0,032967-1-}$$

$$2P_1 = 0,695232-1$$

$$2P_2^2 = 0,232190-2$$

$$\underline{0,932422-3+}$$

$$P_5 = +0,090753 + 0,099223$$

$$P_1 P_2^2 = 0,085590 + 0,008559$$

$$\underline{+0,126343} \quad \underline{0,097882}$$

$$P_1^2 P_3 = -0,107886 \quad \underline{0,107886}$$

$$\underline{+0,068457} \quad \underline{0,000000}$$

$$3P_5 + 3P_1^2 P_3 + 3P_1 P_2^2 = +0,205371$$

$$D = 34^\circ 8' 41''$$

$$5P_1 = 0,917833-1$$

$$3P_1^3 = 0,253499-1$$

$$P_1^3 = +0,566891$$

$$3P_3 = +0,522373$$

$$\underline{+1,094264}$$

$$3P_3 + P_1^3 = +1,094264$$

$$3P_1^2 = 0,835666-1$$

$$2P_3 = 0,244998$$

$$\underline{0,080664-1}$$

$$2P_1 = 0,917833-1$$

$$5P_2^2 = 0,444348-1$$

$$\underline{0,362181-1}$$

$$P_1 P_3 = 0,120410$$

$$P_1 P_2^2 = 0,230240$$

$$\underline{0,350650}$$

$$350626$$

$$D = 58^\circ 2' 3'' \quad \text{sec } D = 0,723794 - 1$$

$$\begin{aligned} \text{gen } D &= 0,723794 - 1 \\ \text{sec } D &= 4,442688 - 1 \\ \text{tan } D &= 0,280277 \\ &\quad \underline{333330} \\ &\quad 4,946947 \\ &\quad - 0,053053 \\ \chi(-) &= 0,724710 - 2 \\ &\quad \underline{176091} \\ 3Q_2 &= 4,900801 - 2 - \\ 3Q_2 &= -0,079579 \end{aligned}$$

$$\begin{aligned} &221850 \quad 823909 \\ &723794 - 1 \quad \underline{723794 - 1} \\ &900801 - 2 \quad 546203 - 1 \\ &\underline{0,846445 - 2} \\ &- 0,070217 \\ &- 0,352130 \\ &\underline{- 0,422347 = Q_3} \end{aligned}$$

$$\begin{aligned} &243038 \quad 875061 \\ &723794 - 1 \quad \underline{679579} \\ &625669 - 1 \quad \underline{400801} \\ &\underline{592501 - 1 -} \\ &275862 - 2 - \\ &- 0,391291 \\ &+ 0,059685 \\ &\underline{+ 0,331606} \\ &5Q_4 = 0,520623 - 1 \end{aligned}$$

$$\begin{aligned} &255273 \quad 903090 \\ &723794 - 1 \quad \underline{625669} \\ &520623 - 1 \quad \underline{528759 - 1} \\ &\underline{499690 - 1} \\ &- 0,316002 \\ &+ 0,337878 \\ &\underline{0,021876 = Q_5} \\ 3Q_5 &= 0,339968 - 2 + \end{aligned}$$

$$\begin{aligned} &263242 \quad 920819 \\ &723794 \quad \underline{520623} \\ &339968 - 2 \quad \underline{44442 - 1} \\ &\underline{322004 - 2} \\ &+ 0,021233 \\ &+ 0,276340 \\ &\underline{+ 0,297573 = Q_6} \\ 3Q_6 &= 0,473594 - 1 + \end{aligned}$$

$$\begin{aligned} &268845 \quad 933053 \\ &723794 \quad \underline{339968 - 2} \\ &473594 \quad \underline{593085 - 2} \\ &\underline{466233} \\ &+ 0,292572 \\ &- 0,039182 \\ &\underline{+ 0,253390 = Q_2} \\ 3Q_2 &= 0,403790 - 1 + \end{aligned}$$

$$D = 34^\circ 8' 41'' \quad \text{sec } D = 0,917833 - 1$$

$$\begin{aligned} &221850 \\ \text{sec } D &= 0,917833 - 1 \\ \text{tan } D &= 0,835666 - 1 \\ \text{cot } D &= 0,684961 \\ &\quad \underline{333333} \\ &\quad 4,0351628 \\ 3Q_4 &= 0,546083 - 1 \\ &\quad \underline{176091} \\ 3Q_2 &= 4,722174 - 1 + \end{aligned}$$

$$\begin{aligned} &221850 \quad 823909 \\ &917833 \quad \underline{917833} \\ &722174 \quad \underline{741742 - 1} \\ &\underline{861857 - 1} \\ &+ 0,727540 \\ &- 0,551749 \\ &\underline{0,175791 - 1 = Q_3} \\ 3Q_3 &= 0,244998 - 1 + \end{aligned}$$

$$\begin{aligned} &243038 \quad 875061 \\ &917833 \quad \underline{722174 - 1} \\ &244998 \quad \underline{597235 - 1} \\ &\underline{405869} \\ &0,254607 \\ &\underline{395581} \\ &\underline{- 0,140974 = Q_4} \\ 3Q_4 &= 0,149139 - 1 - \end{aligned}$$

$$\begin{aligned} &255273 \quad 903090 \\ &917833 \quad \underline{244998 - 1} \\ &149139 \quad \underline{148088 +} \\ &\underline{- 322245 - 1} \\ &- 0,210013 \\ &- 0,140633 \\ &\underline{- 0,350646 = Q_5} \\ 5Q_5 &= 0,544869 - 1 - \end{aligned}$$

$$\begin{aligned} &263242 \quad 920819 \\ &917833 \quad \underline{903090} \\ &544869 \quad \underline{149139} \\ &\underline{725944} \quad \underline{052229} \\ &\underline{069958} \\ &- 0,532040 \\ &+ 117428 \\ &\underline{- 0,414562 = Q_6} \\ 3Q_6 &= 0,617589 - 1 - \end{aligned}$$

$$\begin{aligned} &268845 \quad 933053 \\ &917833 \quad \underline{544869} \\ &617589 \quad \underline{488922} \\ &\underline{804267} \\ &- 0,637186 \\ &+ 0,300554 \\ &\underline{- 0,336632 = Q_2} \\ 3Q_2 &= 0,527155 - 1 - \end{aligned}$$

MAGYAR
UDOMTUDOMANYSZAGI
KONYVTARA

$$3P_7 + 3P_1P_3^2 + 3P_1^2P_5 + 3P_2^2P_3$$

$D = 60^{\circ} 16' 52''$

$\rho \text{en} D = 0,695232 - 1$

$\rho \text{en} D = 0,390464 - 1$

$\text{en} D = 0,245733$
 $\quad \quad 333333$

$- 0,082600$
 $\quad \quad 27609$

$\rho A = 0,942504 - 2$

$\quad \quad 276091$

$\rho Q_2 = 0,118595 - 1$

$Q_2 = -0,074062$

221850	823909
695232	695232
118595	519141
<u>035622</u>	

$-0,108562$

$-0,330422$

$-0,439039 = Q_3$

$\rho Q_3 = 0,642503 - 1$

243038	875061
695232	074067
642503	999128-2
<u>580883</u>	

$-0,380862$

$+0,088946$

$-0,291921 = Q_4$

$\rho Q_4 = 0,465265 - 1$

255273	903090
695232	642503
465265	545593
<u>415220</u>	

$-0,260428$

$+0,351231$

$+0,090253 = Q_5$

$\rho Q_5 = 0,957861 - 2 +$

263242	920819
695232	465265
465265	386084
<u>957861</u>	

$916335-2$

$+0,082422$

$+0,243270$

$\rho Q_6 = 0,512880 - 1 +$

268845	933053
695232	957861
512880	890919
<u>426952</u>	

$+0,299887$

$0,077288$

$+0,222099 = Q_2$

$\rho Q_2 = 0,346547 - 1$

$D = 43^{\circ} 18' 50''$

$\rho \text{en} D = 0,861892 - 1$

$\rho \text{en} D = 0,723794 - 1$

$\text{en} D = 0,529412$
 $\quad \quad 0,333333$

$\Delta = 0,196029$

$\rho A = 0,292431 - 1$

$\quad \quad 176691$

$\rho Q_2 = 0,468522 - 1 +$

$Q_2 = 0,294118$

221850	823909
861892	861892
468522	685806
<u>552269</u>	

$+0,356622$

$-0,485022$

$-0,128400 = Q_3$

$\rho Q_3 = 0,108565 - 1$

243038	875061
861892	468522
108565	343583
<u>213500</u>	

$-0,163493$

$-0,220588$

$0,384021 = Q_5$

$\rho Q_4 = 0,584423 - 1$

255273	903090
695232	108565
861892	011655
584423	
<u>201593</u>	

$-0,503029$

$+0,102720$

$-0,400309 = Q_5$

$\rho Q_5 = 0,602504 - 1$

263242	920819
861892	584423
602504	505242
<u>227643</u>	

$-0,534125$

$+0,320068$

$-0,214057 = Q_6$

$\rho Q_6 = 0,330530 - 1$

268845	933053
861892	602504
330530	535552
<u>461222</u>	

$-0,289250$

$+0,343208$

$+0,053958 = Q_2$

$\rho Q_2 = 0,732056 - 2 +$

Linear Comp. 25° Corrupt: 27.

$\alpha = 0,000519$

$t_1 = 20m = 1200s$

$s_0 = 265,6$	11h. 70m.	$s_0 - s_1 = 12,9$
$s_1 = 252,7$		$s_1 - s_2 = 11,0$
$s_2 = 241,7$		$s_2 - s_3 = 8,9$
$s_3 = 233,8$		

$n = e^{-\alpha t_1}$

$1\alpha = 0,71504 - 4$
 $2t_1 = 0,07918$
 $\frac{0,89422 - 1}{0,20548}$
 $10,20 = 0,31341 - 1$
 $1\alpha t_1 = 0,79422 - 1$
 $\frac{63778 - 1}{4,43200 - 1}$
 $- \alpha t_1 \log e = -0,27039$
 $3u = 0,72961 - 1$
 $\frac{2\alpha t_1}{3} = 2u = 0,45922 - 1$

$1s_0 - s_1 = 1,11059$
 $1u^2 = 0,45922 - 1$
 $\frac{0,56981}{(s_0 - s_1)u^2 = 3,71375}$
 $s_2 - s_3 = 7,9$

$1s_1 - s_2 = 1,04139$
 $12 = 0,30103$
 $1u = 0,72961 - 1$
 $12u - 1u = 1,08203$
 $14(s_1 - s_2)u^2 = 2,14406$

$S_1 = s_2 - s_3 + (s_0 - s_1)u^2 = 11,61375$
 $1S_1 = 1,06497$
 $1S_1^2 = 2,12994$

Mean base natural ratio: $e^{\pm \sqrt{\alpha^2 - \omega^2}}$ Kiprakes. Lavin

$$a_1 + a_2 = 2 \left[\frac{(s_1 - s_0)u - (s_2 - s_1)x}{(ux - 1)(1 - x^2)u} + \frac{(s_2 - s_1) - ux(s_1 - s_0)}{(u - x)(1 - x^2)u} x^2 \right]$$

$$= \frac{2}{(1 - x^2)u} \left[\frac{(s_1 - s_0)u - (s_2 - s_1)x}{ux - 1} + \frac{(s_2 - s_1) - ux(s_1 - s_0)}{u - x} x^2 \right]$$

$$= \frac{2}{(1 - x^2)u} \frac{(s_1 - s_0)u(u - x) - (s_2 - s_1)x(u - x) + (s_2 - s_1)x^2(ux - 1) - (s_1 - s_0)ux^3(ux - 1)}{(ux - 1)(u - x)}$$

$$= \frac{2}{(1 - x^2)u} \frac{(s_1 - s_0)[u(u - x) - ux^3(ux - 1)] + (s_2 - s_1)[x^2(ux - 1) - x(u - x)]}{(ux - 1)(u - x)}$$

$$= \frac{2}{(1 - x^2)u} \frac{u(s_1 - s_0)[u - x - x^3(ux - 1)] + (s_2 - s_1)x[(ux - 1)x - (u - x)]}{(ux - 1)(u - x)}$$

$$= \frac{2}{(1 - x^2)u} \frac{u(s_1 - s_0)[u - x - ux^4 + x^3] + (s_2 - s_1)x[ux^2 - x - u + x]}{(ux - 1)(u - x)}$$

$ux^4 + x^3 - x + u : x^2 - 1 = ux^2 + x^2$	$ux^4 - x^3 + x - u : x^2 - 1 = ux^2 - x + u$
$\frac{ux^4}{ux^4} - \frac{ux^2}{ux^2}$	$\frac{ux^4}{ux^4} - \frac{ux^2}{ux^2}$
$\frac{x^3 + ux^2}{x^3 + ux^2}$	$\frac{-x^3 + ux^2}{-x^3 + ux^2}$
$\frac{-x^3}{-x^3} + \frac{x^2}{x^2}$	$\frac{-x^3 + x}{-x^3 + x}$
$\frac{(1+u)x^2 - x + u}{(1+u)x^2 - x + u}$	$\frac{ux^2 - x + x - u}{ux^2 - u}$

$a_1 + a_2 = \frac{u(s_1 - s_0)(1 - x^2)(ux^2 - x + u) + (s_2 - s_1)x(u(x^2 - 1))}{(ux - 1)(u - x)} \cdot \frac{2}{(1 - x^2)u}$

$a_1 + a_2 = \frac{(s_1 - s_0)(ux^2 - x + u) - (s_2 - s_1)x}{(ux - 1)(u - x)} \quad \left| \quad \frac{(s_1 - s_0)\left(\frac{u}{x^2} - \frac{1}{x} + u\right) - \frac{s_2 - s_1}{x}}{\left(\frac{u}{x} - 1\right)\left(u - \frac{1}{x}\right)} \right.$

$$2s = e^{-\alpha t} (a_1 e^{t\sqrt{\alpha^2 - \omega^2}} + a_2 e^{-t\sqrt{\alpha^2 - \omega^2}})$$

$$\alpha^2 > \omega^2$$

$$a_1, a_2, \omega$$

$$t=0 \quad 2s_0 = a_1 + a_2$$

$$t=t_1 \quad 2s_1 = e^{-\alpha t_1} (a_1 e^{t_1\sqrt{\alpha^2 - \omega^2}} + a_2 e^{-t_1\sqrt{\alpha^2 - \omega^2}})$$

$$t=2t_1 \quad 2s_2 = e^{-2\alpha t_1} (a_1 e^{2t_1\sqrt{\alpha^2 - \omega^2}} + a_2 e^{-2t_1\sqrt{\alpha^2 - \omega^2}})$$

$$t=3t_1 \quad 2s_3 = e^{-3\alpha t_1} (a_1 e^{3t_1\sqrt{\alpha^2 - \omega^2}} + a_2 e^{-3t_1\sqrt{\alpha^2 - \omega^2}})$$

$$e^{-\alpha t} = u; \quad e^{t\sqrt{\alpha^2 - \omega^2}} = x$$

$$\begin{cases} 2s_0 = a_1 + a_2 \\ 2s_1 = u(a_1 x + a_2 x^{-1}) \\ 2s_2 = u^2(a_1 x^2 + a_2 x^{-2}) \\ 2s_3 = u^3(a_1 x^3 + a_2 x^{-3}) \end{cases}$$

$$\begin{aligned} 2(s_1 - s_0) &= (ux - i)a_1 + (ux^{-1} - i)a_2 \\ 2(s_2 - s_1) &= ux(ux - i)a_1 + ux^{-1}(ux^{-1} - i)a_2 \\ 2(s_3 - s_2) &= u^2x^2(ux - i)a_1 + u^2x^{-2}(ux^{-1} - i)a_2 \end{aligned}$$

$$J = \begin{vmatrix} s_0 - s_1 & i & 1 \\ s_1 - s_2 & ux & ux^{-1} \\ s_2 - s_3 & u^2x^2 & ux^{-2} \end{vmatrix} = 0$$

$$J = \begin{vmatrix} s_0 - s_1 & 1 & x^2 \\ s_1 - s_2 & ux & ux \\ s_2 - s_3 & u^2x^2 & u^2 \end{vmatrix} = 0 = \begin{vmatrix} s_0 - s_1 & 1 - x^2 & x^2 \\ s_1 - s_2 & 0 & ux \\ s_2 - s_3 & -u^2(1 - x^2) & u^2 \end{vmatrix} = 0$$

$$\begin{vmatrix} s_0 - s_1 & 1 & x^2 \\ s_1 - s_2 & 0 & ux \\ s_2 - s_3 & -u^2 & u^2 \end{vmatrix} = \begin{vmatrix} s_0 - s_1 & 1 & 1 + x^2 \\ s_1 - s_2 & 0 & ux \\ s_2 - s_3 & -u^2 & 0 \end{vmatrix} = 0$$

$$(s_0 - s_1)u^3x - (s_1 - s_2)u^2(1 + x^2) + (s_2 - s_3)ux = 0$$

$$(s_0 - s_1)u^2x - (s_1 - s_2)u(1 + x^2) + (s_2 - s_3)x = 0$$

$$(s_1 - s_2)ux^2 - [(s_2 - s_3) + (s_0 - s_1)u^2]x + (s_1 - s_2)u = 0$$

$$x = \frac{(s_2 - s_3) + (s_0 - s_1)u^2 + \sqrt{[(s_2 - s_3) + (s_0 - s_1)u^2]^2 - 4(s_1 - s_2)^2u^2}}{2(s_1 - s_2)u}$$

$$e^{t\sqrt{\alpha^2 - \omega^2}} = \frac{(s_2 - s_3) + (s_0 - s_1)e^{-2\alpha t} + \sqrt{[(s_2 - s_3) + (s_0 - s_1)e^{-2\alpha t}]^2 - 4(s_1 - s_2)^2e^{-2\alpha t}}}{2(s_1 - s_2)e^{-\alpha t}}$$

$$a_1 = 2 \frac{\begin{vmatrix} s_1 - s_0 & ux^{-1} - i \\ s_2 - s_1 & ux^{-1}(ux^{-1} - i) \end{vmatrix}}{\begin{vmatrix} ux - i & ux^{-1} - i \\ ux(ux - i) & ux^{-1}(ux^{-1} - i) \end{vmatrix}} = 2 \frac{\begin{vmatrix} s_1 - s_0 & i \\ s_2 - s_1 & ux^{-1} \end{vmatrix}}{(ux - i) \begin{vmatrix} i & i \\ ux & ux^{-1} \end{vmatrix}} = 2 \frac{\begin{vmatrix} s_1 - s_0 & x \\ s_2 - s_1 & u \end{vmatrix}}{(ux - i) \begin{vmatrix} 1 & x \\ ux & u \end{vmatrix}} = 2 \frac{(s_1 - s_0)u - (s_2 - s_1)x}{(ux - i)u(1 - x^2)}$$

$$a_2 = 2 \frac{\begin{vmatrix} ux - i & s_1 - s_0 \\ ux(ux - i) & s_2 - s_1 \end{vmatrix}}{\begin{vmatrix} ux - i & ux^{-1} - i \\ ux(ux - i) & ux^{-1}(ux^{-1} - i) \end{vmatrix}} = 2 \frac{\begin{vmatrix} 1 & s_1 - s_0 \\ ux & s_2 - s_1 \end{vmatrix}}{\begin{vmatrix} i & ux^{-1} - i \\ ux & ux^{-1}(ux^{-1} - i) \end{vmatrix}} = 2 \frac{(s_2 - s_1) - ux(s_1 - s_0)}{\frac{u}{x}(\frac{u}{x} - i) - u^2 + ux} = 2 \frac{(s_2 - s_1) - ux(s_1 - s_0)}{u(n - x) - ux^2(n - x)}$$

$$a_1(\frac{1}{x}) = 2 \frac{(s_1 - s_0)u - \frac{s_2 - s_1}{x}}{(\frac{u}{x} - i)u(1 - \frac{1}{x^2})} = 2x \frac{(s_2 - s_1) - ux(s_1 - s_0)}{u(n - x)(1 - x^2)} = 2 \frac{(s_2 - s_1) - ux(s_1 - s_0)}{(n - x)(n - ux^2)} x^2$$

$$= 2x^2 \frac{(s_1 - s_0)ux - (s_2 - s_1)}{(n - x)u(x^2 - i)} = a_2$$

$$(a - 2d_1) d_3 + (a - 2d_1) d_1 u^2 = a d_2 + a d_2 u^2 - 2d_2 (d_1 + d_2)$$

$$[(a - 2d_1) d_1 - a d_2] u^2 = a d_2 - (a - 2d_1) d_3 - 2d_2 (d_1 + d_2)$$

$$u = \sqrt{\frac{a(d_2 - d_3) + 2d_1 d_3 - 2(d_2(d_1 + d_2))}{a(d_1 - d_2) - 2d_1^2}}$$

$$u = \sqrt{\frac{a[(s_1 - s_2) - (s_2 - s_3)] + 2[(s_0 - s_1)(s_2 - s_3) - (s_1 - s_2)(s_0 - s_2)]}{a[(s_0 - s_1) - (s_1 - s_2)] - 2(s_0 - s_1)^2}}$$

$$(s_1 - s_2)(s_0 - s_2)$$

$$(s_0 - s_1)(s_2 - s_3) = -(s_1 - s_2)(s_2 - s_3) + (s_0 - s_1)(s_2 - s_3)$$

$$= (s_0 - s_1)(s_2 - s_3) - (s_1 - s_2)(s_2 - s_3) - (s_0 - s_2)(s_1 - s_2)$$

$$(s_0 - s_1)(s_1 - s_2) - (s_1 - s_2)(s_1 - s_2)$$

$$e^{-\alpha t_1} = \sqrt{\frac{a[(s_1 - s_2) - (s_2 - s_3)] + 2[(s_0 - s_1)(s_2 - s_3) - (s_1 - s_2)(s_0 - s_2)]}{a[(s_0 - s_1) - (s_1 - s_2)] - 2(s_0 - s_1)^2}} = u$$

$$\textcircled{c} \frac{\hbar \omega}{t_1 \sqrt{\alpha^2 \omega^2}} = x = \frac{(s_1 - s_3) + (s_0 - s_1) u^2 + \sqrt{[(s_2 - s_3) + (s_0 - s_1) u^2]^2 - 4(s_1 - s_2) u^2}}{2(s_1 - s_2) u}$$

$$s'' + 2\alpha s' + \omega^2 s = 0$$

$$\kappa \frac{d^2 \mathcal{D}}{dt^2} + 2\varepsilon \frac{d\mathcal{D}}{dt} + \tau \mathcal{D} = 0$$

$$\frac{\tau}{\kappa} = \omega^2$$

$$\frac{2\varepsilon}{\kappa} = 2\alpha$$

$$\frac{2\varepsilon}{\kappa} = \alpha_1$$

$$\left(\frac{\tau}{\kappa}\right) = \alpha_2$$

$$s(x) = s\left(\frac{1}{x}\right) \quad x = f(u)$$

$$s(ux-1)(u-x) = (s_1-s_0)(ux^2-x+u) - (s_2-s_1)x$$

$$s[ux^2-u-ux^2+x] = (s_1-s_0)(ux^2-x+u) - (s_2-s_1)x$$

$$\cancel{s(-ux^2 - (s_1-s_0)ux^2)}$$

$$\left(-su - (s_1-s_0)u\right)x^2 + \left(su^2x + sx + (s_1-s_0)x + (s_2-s_1)x\right) + \left(-su - (s_1-s_0)u\right) = 0$$

$$u(s+s_1-s_0)x^2 - (su^2+s+s_2-s_0)x + u(s+s_1-s_0) = 0$$

$$u(s+s_1-s_0)\frac{1}{x^2} - \left(-\quad-\quad-\right)\frac{1}{x} + \quad-\quad-\quad = 0$$

$$u(s+s_1-s_0)\left(x^2 + \frac{1}{x^2}\right) - (su^2+s+s_2-s_0)\left(x + \frac{1}{x}\right) + 2u(s+s_1-s_0)$$

$$u(s+s_1-s_0)x - (su^2+s+s_2-s_0) + u(s-s_1-s_0)\frac{1}{x}$$

$$u(s+s_1-s_0)\left(x + \frac{1}{x}\right) = su^2+s+s_2-s_0$$

$$u(s_1-s_2)\left(x + \frac{1}{x}\right) = s_2-s_3 + (s_0-s_1)u^2$$

$$\frac{s+s_1-s_0}{s_1-s_2} = \frac{su^2+s+s_2-s_0}{s_2-s_3+(s_0-s_1)u^2}$$

$$(s+s_1-s_0)(s_0-s_2)u^2 + (s_2-s_3)(s_1-s_2) = s(s_1-s_2)u^2 + (s_1-s_2)(s+s_2)$$

$$(s_2-s_3)(s+s_1-s_0) + (s_0-s_1)\left(x + \frac{1}{x}\right)u^2 = s(s_1-s_2)u^2 + (s_1-s_2)(s+s_2-s_0)$$

$$s(s_1-s_2) + s(s_1-s_0)$$

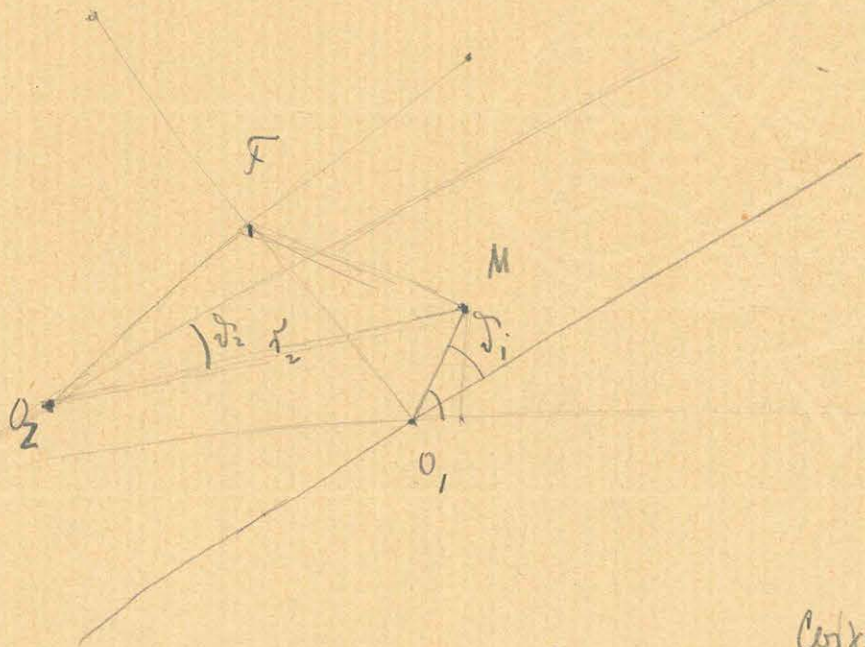
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$$u = \sqrt{\frac{\alpha(s_2-s_3) - 2(s_0-s_1)(s_1-s_2) - \alpha(s_1-s_2) + 2(s_1-s_2)(s_0-s_1)}{\alpha(s_1-s_2) + 2(s_0-s_1)^2}}$$

$$u = \sqrt{\frac{\alpha[(s_2-s_3) - (s_1-s_2)] + 2[(s_1-s_2)(s_0-s_2) + (s_0-s_1)(s_2-s_3)]}{\alpha(s_1-s_2) + 2(s_0-s_1)^2}}$$

$\alpha \quad - \quad 2\alpha$

$$u = \sqrt{\frac{\alpha[(s_2-s_3) - (s_1-s_2)] + (s_1-s_2)(s_0-s_1) + (s_0-s_1)(s_2-s_3)}{\alpha(s_1-s_2) + (s_0-s_1)^2}}$$



$$\cos(\gamma_1 + \delta_1) = \frac{l^2 - R^2 - r_1^2}{2Rr_1}$$

$$\begin{aligned} & (a + b \sin 2\delta_1) r_1 \cos \gamma_1 \\ & (a + b \sin 2\delta_2) r_2 \cos \gamma_2 \\ & (a + b \sin 2\delta_3) r_3 \cos \gamma_3 \\ & (a + b \sin 2\delta_4) r_4 \cos \gamma_4 \end{aligned}$$

$$\begin{aligned} l^2 &= R^2 + r_1^2 + 2Rr_1 \cos(\gamma + \delta_1) \\ l^2 &= R^2 + r_2^2 + 2Rr_2 \cos(\gamma + \delta_2) \\ l^2 &= \dots \end{aligned}$$

$$1 + \cos(\gamma + \delta_1) = \frac{l^2 - (R - r_1)^2}{2Rr_1}$$

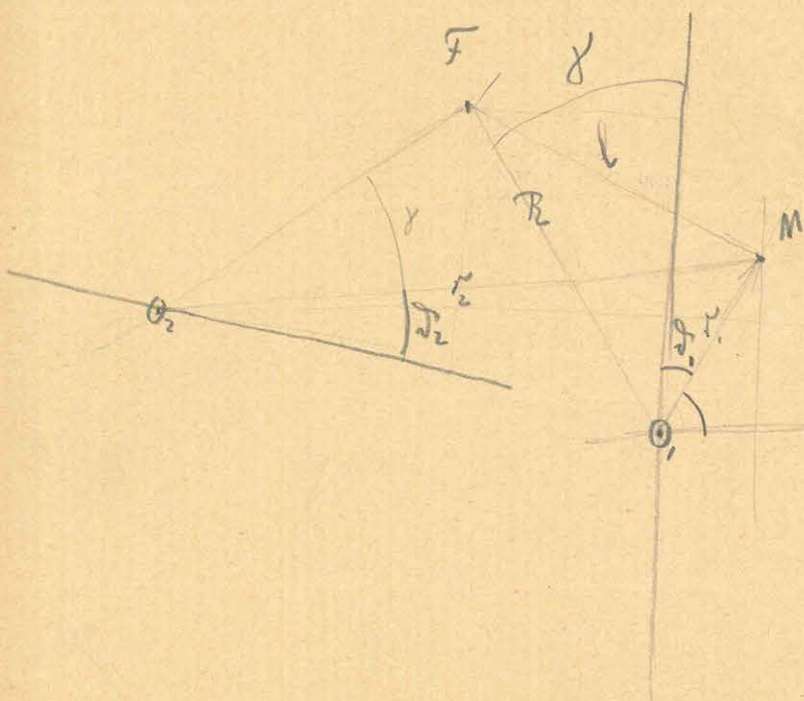
$$1 - \cos(\gamma + \delta_1) = \frac{(R + r_1)^2 - l^2}{2Rr_1}$$

$$2 \cos^2(\gamma + \delta_1) = \frac{l^2 - (R - r_1)^2}{2Rr_1}$$

$$2 \sin^2 \frac{\gamma + \delta_1}{2} = \frac{(R + r_1)^2 - l^2}{2Rr_1}$$

$$2 \cos^2 \frac{\gamma + \delta_2}{2} = \frac{l^2 - (R - r_2)^2}{2Rr_2}$$

$$2 \sin^2 \frac{\gamma + \delta_2}{2} = \frac{(R + r_2)^2 - l^2}{2Rr_2}$$



$$a^2 s^2 \sin^2 \varepsilon (1 + 2s^2 \cos 2\varepsilon)$$

$$4a^2 s^2 \sin^2 \varepsilon \quad 4a^2 s^2 \frac{\sin 2\varepsilon \Delta}{2}$$

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$$s = e^{-kt} (a_1 e^{t\sqrt{k^2 - \omega^2}} + a_2 e^{-t\sqrt{k^2 - \omega^2}})$$

, u, a_1, a_2

$$\left. \begin{array}{l} t=0 \quad s=s_0 \\ t=t_1 \quad s=s_1 \\ t=2t_1 \quad s=s_2 \\ t=3t_1 \quad s=s_3 \end{array} \right\} e^{-kt_1} = u \quad e^{t_1\sqrt{k^2 - \omega^2}} = x$$

$$2(s_1 - s_0) = (ux - 1)a_1 + \left(\frac{u}{x} - 1\right)a_2$$

$$2(s_2 - s_1) = ux(ux - 1)a_1 + \frac{u}{x}\left(\frac{u}{x} - 1\right)a_2$$

$$2(s_3 - s_2) = u^2x^2(ux - 1)a_1 + \frac{u^2}{x^2}\left(\frac{u}{x} - 1\right)a_2$$

$$s: \begin{vmatrix} s_0 - s_1 & 1 & 1 \\ s_1 - s_2 & ux & \frac{u}{x} \\ s_2 - s_3 & u^2x^2 & \frac{u^2}{x^2} \end{vmatrix} = 0$$

$$x = e^{t_1\sqrt{k^2 - \omega^2}} = \frac{(s_2 - s_3) + (s_0 - s_1)e^{-2kt_1} \pm \sqrt{[(s_2 - s_3) + (s_0 - s_1)u^2]^2 - 4(s_1 - s_2)u^2}}{2(s_1 - s_2)u}$$

$$a_1 = 2 \frac{(s_1 - s_0)e^{-kt_1} - (s_2 - s_1)e^{t_1\sqrt{k^2 - \omega^2}}}{(e^{-kt_1 + t_1\sqrt{k^2 - \omega^2}} - 1)(1 - e^{2t_1\sqrt{k^2 - \omega^2}})e^{-kt_1}}$$

$$a_2 = 2 \frac{(s_2 - s_1) - e^{-kt_1 + t_1\sqrt{k^2 - \omega^2}}(s_1 - s_0)}{e^{-kt_1}(e^{-kt_1} - e^{t_1\sqrt{k^2 - \omega^2}})(1 - e^{2t_1\sqrt{k^2 - \omega^2}})}$$

$$t_1 = 2400 \text{ s.}$$

$$k = 0.000519$$

$$\sqrt{k^2 - \omega^2} = 0.000292$$

$$s_0 - s_1 = +7.9$$

$$u = e^{-kt_1} = 0.2880$$

$$s_1 - s_2 = +13.3$$

$$e^{t_1\sqrt{k^2 - \omega^2}} = 1.754, 0.563$$

$$s_2 - s_3 = +12.9$$

$$x = e^{t_1\sqrt{k^2 - \omega^2}} = 1.754, 0.563$$

$$\lim_{t \rightarrow \infty} [\sqrt{k^2 - \omega^2} - k]t = -\infty$$

$$a_1 = +134.5$$

$$a_2 = -14.33$$

$$\left\{ \begin{array}{l} \text{Egyensúlyi helyzet} = 197.1 \\ \text{Fordulópont ideje} = -1 \text{ h } 39 \text{ min } 27 \text{ s.} \\ \text{Egyensúlyi helyzetet elérés} = -1 \text{ h } 3 \text{ min } 17 \text{ s.} \end{array} \right.$$

$$\text{Fordulópont ideje} = -1 \text{ h } 39 \text{ min } 27 \text{ s.}$$

$$\text{Egyensúlyi helyzetet elérés} = -1 \text{ h } 3 \text{ min } 17 \text{ s.}$$

1 min. Comp. 25 s.k.g. vor.

$6h = 202,7 \text{ mm.}$ $1h = 33,8 \text{ mm.}$ $10' = 5,633 \text{ mm.}$
 $4h = 135,2$ $3h = 101,35 \text{ mm.}$

$s_0 = 2 + 60,2$ $s_0 - s_1 = 41,5$
 $s_1 = 2 + 18,2$ $s_1 - s_2 = 28,4$
 $s_2 = 2 - 9,2$ $s_2 - s_3 = 8,2$
 $s_3 = 2 - 14,9$

$\alpha = 0,000519$ $t_1 = 3600 \text{ s.}$
 $u = e^{-\alpha t_1}$

$\sum \alpha = 0,71504 - 4$
 $\sum t_1 = 3,55630$
0,27134

$\sum \alpha t_1 = 0,27134$
 $0,63778 - 1$
0,90912 - 1

$\sum (s_0 - s_1) = 1,61805$
 $\sum (s_1 - s_2) = 1,45332$
 $\sum (s_2 - s_3) = 0,91381$

$\sum 0,27134 = 0,43357 - 1$
 $0,63778 - 1$
 $0,02129 - 1$
 $-0,11784$

$\sum -\alpha t_1 e^{-\alpha t_1} = -0,81118$
 $\sum (e^{-\alpha t_1}) = 0,18882 - 1 - 2u$
 $\sum u^2 = 0,32264 - 2$

$(s_0 - s_1)u^2 + (s_1 - s_2) = 9,19012$
 $\sqrt{[(s_0 - s_1)u^2 + (s_1 - s_2)]^2 - 4u^2(s_0 - s_1)^2} = 2,7363$

$\sum (e^{-\alpha t_1}) = 0,88216 - 1 = 2u$
 $\sum u^2 = 0,26432 - 1$

$\sum 9,19012 = 0,96332$
 $\sum \dots = 1,92665$

$\sum 11,9264 = 6,4538$
 $\sum N = 8,7734$

$\sum (s_0 - s_1) = 1,61805$
 $\sum u^2 = \frac{0,37764 - 2}{0,99569 - 1}$

$\sum (s_1 - s_2)^2 = 2,90664$
 $\sum u^2 = \frac{0,37764 - 2}{1,28428}$
 $\frac{60206}{1,88634}$

$\sum 11,9264 = 1,07651$
 $\sum N = 0,94317$
 $\sum x_1 = 0,13334$

$(s_0 - s_1)u^2 = 0,99012$
 $s_2 - s_3 = 8,2$

$\sum 4(s_1 - s_2)u^2 = 76,973$
 $\sum [(s_0 - s_1)u^2 + (s_1 - s_2)]^2 = 84,460$
 $+ 2,487$

$\sum 6,4538 = 0,80982$
 $0,94317$
 $\sum x_2 = 0,86665 - 1$

$\sum (s_0 - s_1)u^2 + (s_1 - s_2) = 9,19012$

$\sum 2,487 = 0,87431$
 $\sum \sqrt{2,487} = 0,43716$

$x_1 = 1,3594$ $x_2 = 0,73561$

$x_1, x_2 = 1$

$\sum x_1^2 = 0,26668$
 $x_1^2 = 1,8479$
 $1 - x_1^2 = -0,8479$

$\sum x_2^2 = 0,23330 - 1$
 $x_2^2 = 0,54103$
 $1 - x_2^2 = 0,45897$

$\sum u = 0,18882 - 1$
 $\sum x_1 = 0,13334$
 $\sum u x_1 = 0,32216 - 1$
 $u x_1 = 0,20997$
 $u x_1 - 1 = -0,79003$

$\sum u = 0,18882 - 1$
 $\sum x_2 = 0,86665 - 1$
 $0,05547 - 1$
 $u x_2 = 0,11362$
 $u x_2 - 1 = -0,88638$

$\sum (s_1 - s_0) = 1,61805 -$
 $\sum u = 0,18882 - 1$
 $\sum (s_1 - s_0)u = 0,80687 -$

$a_1 + a_2 = 161,42$

$\sum (s_2 - s_1) = 1,45332 -$
 $\sum x_1 = 0,13334$
 $\sum (s_2 - s_1)x_1 = 1,58666 -$

$\sum (s_2 - s_1) = 1,45332 -$
 $\sum x_2 = 0,86665 - 1$
 $\sum (s_2 - s_1)x_2 = 1,31997 -$

$s_0 = 80,7$

$\sum (u x_1 - 1) = 0,89765 - 1 -$
 $\sum u = 0,18882 - 1$
 $\sum (1 - x_1^2) = 0,92834 - 1 -$
 $\sum N = 0,01481 - 1 +$

$\sum (u x_2 - 1) = 0,94762 - 1 -$
 $\sum u = 0,18882 - 1$
 $\sum (1 - x_2^2) = 0,947$
 $\sum (1 - x_2^2) = 0,66178 - 1 +$
 $\sum N = 0,29822 - 2 -$

Entwert $s_0 = 81,5$

$(s_1 - s_0)u = -6,4101$
 $(s_2 - s_1)x_1 = -38,606$
32,196

$(s_1 - s_0)u = -6,4101$
 $(s_2 - s_1)x_2 = -20,8914$
 $\sum = +14,4813$

$\sum 2 = 64,392$
 $\sum R = 1,80883$
 $\sum N = 0,01481 - 1$
2,29402

$\sum 2 = 28,9626$
 $\sum R = 1,46184$
 $\sum N = 0,29822 - 2$
2,66362 -

$a_1 = 622,33$

$a_2 = -460,91$

$60,2$
 $21,3$
81,5

OKI. 23-24

$t_1 = 1800 \quad \alpha = 0,000519$

$s_0 = 2 + 5,7$

$s_0 - s_1 = 13,4$

$\sum s_0 - s_1 = 1,12710$

$s_1 = 2 - 7,7$

$s_1 - s_2 = 9,3$

$\sum s_1 - s_2 = 0,96848$

$s_2 = 2 - 17,0$

$s_2 - s_3 = 5,8$

$\sum s_2 - s_3 = 0,76343$

$s_3 = 2 - 27,8$

$\sum n = 0,59441 - 1$

$\sum 2 = 0,30103$

$\sqrt{8,498} = 2,9150$

$\sum n^2 = 0,18882 - 1$

$\sum n = 0,59441 - 1$

$s_2 - s_3 + (s_0 - s_1)u^2 = 8,8698$

$s_0 - s_1 = 1,12710$

$0,31592$

$\sum (n(s_0 - s_1))^2 = 0,86392$

$1,22284$

$\sum = 4,9548 \quad 10,2848$

$u^2(s_0 - s_1) = 2,0698$

$s_2 - s_3 = 5,8$

$[(s_2 - s_3) + (s_0 - s_1)u^2]^2 = 61,933$

$4(s_2 - s_3)^2 u^2 = 53,436$

$\sum L = 0,09502$

$\sum N = 0,86392$

$\sum X_2 = 0,83110 - 1$

$u^2(s_0 - s_1) + s_2 - s_3 = 8,8698$

$\sum L = 0,89596$

$\sum L^2 = 1,29192$

$\sum 8,498 = 0,92927$

$\sum \sqrt{8,498} = 0,46464$

$\sum L = 1,03281$

$\sum N = 0,86392$

$\sum X_1 = 0,16889$

$X_1 =$

$\sum X_1 = 0,16889$

$\sum X_1^2 = 0,33228$

$X_1^2 = 2,1766$

$1 - X_1^2 = -1,1766$

$\sum X_2 = 0,83110 - 1$

$\sum X_2^2 = 0,66220 - 1$

$X_2^2 = 0,45941$

$1 - X_2^2 = 0,54059$

$\sum n = 0,59441 - 1$

$\sum X_1 = 0,16889$

$0,26330 - 1$

$u X_1 = 0,57983$

$u X_1 - 1 = -0,42017$

$\sum n = 0,59441 - 1$

$\sum X_2 = 0,83110 - 1$

$0,42551 - 1$

$u X_2 = 0,26639$

$u X_2 - 1 = 0,73361$

$\sum (s_1 - s_0) = 1,12710 -$

$\sum n = 0,59441 - 1$

$\sum u(s_1 - s_0) = 0,72151 -$

$\sum (s_2 - s_1) = 0,96848 -$

$\sum X_1 = 0,16889$

$\sum X_1(s_2 - s_1) = 0,13232 -$

$u(s_1 - s_0) = -5,2664$

$(s_2 - s_1) X_1 = -13,721$

$+ 8,455$

$\sum = 16,910$

$\sum L = 1,22814$

$\sum N = 0,28842 - 1$

$\sum a_1 = 1,93967$

$\sum (s_2 - s_1) = 0,96848 -$

$\sum X_2 = 0,83110 - 1$

$0,29958$

$u(s_1 - s_0) = -5,2664$

$(s_2 - s_1) X_2 = -0,2890$

$+ 1,0226$

$\sum = + 2,0452$

$\sum L = 0,31073$

$\sum N = 0,19275 - 1$

$\sum a_2 = 1,11798 -$

Ergebnis: 37,0

Ergebnis: 37,2

$\sum (u X - 1) = 0,62343 - 1 -$

$\sum n = 0,59441 - 1$

$\sum (1 - X^2) = 0,07063 -$

$a_1 = 87,030$

$\sum (u X_2 - 1) = 0,86547 - 1 -$

$\sum n = 0,59441 - 1$

$\sum (1 - X_2^2) = 0,23287 - 1$

$a_2 = -87,122$

$2s_0 = 73,908$

~~$s_0 = 36,954$~~

$2s_0 = 73,908$

$s_0 = 36,954$

$5,7$

$32,0$

$32,7$

$32,8$

$32,0$

$32,8$

$32,0$

$$\sqrt{k^2 - \omega^2} = 0.000450$$

$$a_2 = -14.33$$

$$a_1 = +134.5$$

$$g a_2 = 1.1561$$

$$g a_1 = 2.1287$$

$$g \frac{a_1}{a_2} = 0.9726$$

$$g \sqrt{\frac{a_1}{a_2}} = 0.4863$$

$$g \sqrt{\frac{a_1}{a_2}} = 0.6869 - i$$

$$g e = \frac{0.6371 - i}{0.0498}$$

$$g \sqrt{k^2 - \omega^2} = \frac{0.6532 - 4}{3.3966}$$

$$24935.$$

$$\left(\frac{a_2}{a_1}\right) = \frac{a_2}{a_1} \frac{e}{e}$$

$$t_1 \sqrt{k^2 - \omega^2} = 1.754$$

$$t_1 \sqrt{k^2 - \omega^2} = \frac{\log 1.754}{\log e}$$

$$g t_1 \sqrt{k^2 - \omega^2} = 0.3874 - i$$

$$0.6378 - i$$

$$0.7496 - i$$

$$g t_1 = 3.3802$$

$$g \sqrt{k^2 - \omega^2} = 0.4694 - 4$$

$$\sqrt{k^2 - \omega^2} = 0.000292$$

$$0.0498$$

$$0.4694 - 4$$

$$3.5804$$

$$35075.2000 \quad 1h. \quad 3m. \quad 17s \quad \text{partial}$$

$$k + \sqrt{k^2 - \omega^2} = \frac{0.000292}{0.000519}$$

$$0.000811$$

$$k - \sqrt{k^2 - \omega^2} = 0.000227$$

$$g k = 0.9090 - 4$$

$$g N = 3560 - 4$$

$$0.5530$$

$$0.2765$$

$$g 0.2765 = 0.4417 - i$$

$$g e = \frac{0.6378 - i}{0.8039 - i}$$

$$0.8039 - i$$

$$g k = 0.715043 - 4$$

$$g t_0 = 3.77525$$

$$0.49029$$

$$g e = \frac{0.63778 - i}{0.12807}$$

$$0.12807$$

$$g e^{-t_0} = -1.3430$$

$$= 0.6570 - 2$$

$$1544.4 - 2.7359$$

$$0.6570 - 2$$

$$1.3929$$

$$24.7$$

$$g \sqrt{\frac{a_1}{a_2}} = 0.4863$$

$$g \sqrt{\frac{k_1}{k_2}} = \frac{0.3765}{0.7628}$$

$$g 0.3765 = 0.8824 - i$$

$$g e = \frac{0.6378 - i}{0.2446}$$

$$0.2446$$

$$g \sqrt{k^2 - \omega^2} = 0.4694 - 4$$

$$36.7752 -$$

$$5960 = 1h. \quad 39m. \quad 20s. \quad \text{partial}$$

$$7600$$

$$2360$$

$$2400 \cdot \frac{5960}{2400} = \frac{298}{120} = \frac{149}{60} = 2.5$$

$$e^{\sqrt{k^2 - \omega^2}}$$

$$t_0 \sqrt{k^2 - \omega^2} = 4.074$$

$$e^{t_0 \sqrt{k^2 - \omega^2}}$$

$$e^{-t_0 \sqrt{k^2 - \omega^2}} = 0.245$$

$$g x = \frac{0.2440}{2.5}$$

$$4880$$

$$12200$$

$$0.61000$$

$$g x = \frac{0.7560 - i}{2.5}$$

$$15120$$

$$37800$$

$$1.89000 - 2.5$$

$$g a_2 = 0.3900 - i$$

$$1.1560$$

$$0.5461$$

$$g a_1 = \frac{2.1287}{2.7387}$$

$$547.9$$

$$3.5$$

$$544.4$$

SS

$$t_1 = 40m = 2400s$$

$$k = 0.000519 \quad \omega k = 0.715043-4$$

$$e^{-kt_1}$$

$$u = 0.2880 \quad \rho u = 0.4593-1$$

$$s_k = 0.715043-4$$

$$t_1 = 3.3802$$

$$0.0952$$

$$22e = 0.6378-1$$

$$0.7330-1$$

$$f e^{-kt_1} = -0.5407 = 0.4593-1$$

$$0 \dots 257.2$$

$$t_1 \dots 244.3$$

$$2t_1 \dots 231.0$$

$$3t_1 \dots 223.1$$

$$s u^2 = 0.9186-2$$

$$s_{30-s_1} = 1.1106$$

$$s u^2 (s_0-s_1) = 0.0292$$

$$(s_2-s_0) + (s_0-s_1)u^2 = 50.46$$

$$-4u^2(s_1-s_2) = -58.69$$

$$+ 21.77$$

$$s(s_1-s_2) = 2.2479$$

$$2u^2 = 0.9186-2$$

$$602i$$

$$14u(s_1-s_2) = 1.7685$$

$$s 2u(s_1-s_2) = 0.8843$$

$$s \sqrt{21.77} = 0.6689$$

$$s(s_1-s_0) = 1.1106$$

$$s u = 0.4593-1$$

$$0.5699$$

$$s_{s_2-s_1} = 1.1239$$

$$s x = 0.2440$$

$$1.3679$$

$$s u = 4593-1$$

$$s x = 2440$$

$$s u x = 7033-1$$

$$u x = 0.505$$

$$x^2 = 3.046$$

$$1-x^2$$

$$2400 \sqrt{k^2-\omega^2} = 1.754$$

$$e^{\sqrt{k^2-\omega^2}} = (1.754)^{2400}$$

$$= (1.754)^{2400} = (1 + 0.754)^{2400} = 1 + \frac{0.754}{2400} = 1.000315$$

$$-0.0012$$

$$0.0005$$

$$-0.0003$$

$$+0.0001$$

$$1.000225$$

$$e^{\sqrt{k^2-\omega^2}} = 1 + x + \frac{x^2}{2} = 1.000225$$

$$\frac{x^2}{2} + x - 0.000225 = 0$$

$$x = 2 \frac{-1 + \sqrt{1 + 2 \cdot (0.000225)}}{2} = x = -2 \pm 2 \sqrt{1.000450} = -2 + 2.000450 = 0.000450$$

$$s_2-s_3 = +7.9$$

$$s_2-s_3 = 0.8976$$

$$s_1-s_2 = +13.3$$

$$s_1-s_2 = 1.1239$$

$$s_0-s_1 = +12.9$$

$$s_0-s_1 = 1.1106$$

$$s u^2 (s_0-s_1)u^2 = 1.069$$

$$s_2-s_3 = 7.9$$

$$+ 8.969$$

$$\sqrt{\dots} = +4.667$$

$$s_2 = +13.436, +4.302$$

$$s h = 1.1283$$

$$s h = 0.6337$$

$$s N = 0.8843$$

$$s N = 0.8843$$

$$s x_1 = 0.2440$$

$$s x_2 = 0.7494-1$$

$$x_1 = 1.754, 0.5615 = x_2$$

$$s u = (s_1-s_0)u = -3.715$$

$$u x - i = -0.495$$

$$s u x - i = 0.6946-1$$

$$(s_1-s_0)x = -23.33$$

$$1-x^2 = -2.046$$

$$s u = 0.4593-1$$

$$+ 19.61$$

$$u = 0.2880$$

$$s(1-x) = 0.3109$$

$$0.4649-1$$

$$s h = 1.2925$$

$$s N = 0.4649-1$$

$$0.8277$$

$$3010$$

$$a_1 = 2.1287$$

$$a_1 = +134.5$$

$$s N = 0.4648$$

$$s h = 1.6209$$

$$1.1561$$

$$a_2 = -14.33$$

$$s_{s_2-s_1} = -13.3$$

$$s u x = 0.7033-1$$

$$u x (s_1-s_0) = -6.51$$

$$s_1-s_0 = 1.1106$$

$$\left(\frac{1}{2400}\right) = \frac{1}{2400}$$

$$\left(\frac{1}{2400}\right) = \frac{1}{2400} \left(\frac{2400}{2400} - 1\right)$$

$$-0.79$$

$$0.8139-$$

$$s 6.79 = 0.8319$$

$$s x^2 = 0.4880$$

$$s 2 = 0.3010$$

$$s h = 1.6209$$

$$2400 \quad 2400$$

$$2s_0 = (a_1 + a_2) = 120.2$$

$$0.322 : 9600 = 0.00003$$

$$s_0 = 60.1$$

$$e^{t_0} = e^{\frac{1}{\sqrt{k^2-\omega^2}} \sqrt{\frac{C_2}{R_2}}}$$

$$\frac{454 \cdot 24 = 31.5}{34 \quad 100 \quad 568}$$

$$0.754 : 2400 = 754 : 2400000 = 0.000315$$

$$0.428 : 7200 = 0.00005$$

$$568 : 4800000 = 0.00012$$

$$88 \quad 4800$$

$$7200$$

$$1.000315$$

$$5$$

$$1$$

$$1.000375$$

$$15$$

$$1.000225$$

$$1$$

$$1.000225$$

$$15$$

$$1.000225$$

$$15$$

$$1.000225$$

$$15$$

$$\sqrt{k^2-\omega^2} = 0.000450$$

$$k^2-\omega^2 = 0.0000002694 - 0.0000002625$$

$$k^2-\omega^2 = 0.0000002025$$

$$\omega^2 = 0.0000000671$$

$$\omega^2$$

$$2s_0 = a_1 + a_2$$

$$2s_1 = e^{-kt_1} (a_1 e^{t_1 \sqrt{k^2 - \omega^2}} + a_2 e^{-t_1 \sqrt{k^2 - \omega^2}})$$

$$2(s_1 - s_0) = a_1 (e^{-kt_1 + t_1 \sqrt{k^2 - \omega^2}} - 1) + a_2 (e^{-kt_1 - t_1 \sqrt{k^2 - \omega^2}} - 1) = a_1 A_1 + a_2 A_2$$

$$2(s_2 - s_0) = a_1 (+t_2) + a_2 (+t_2) = a_1 B_1 + a_2 B_2$$

$$a_1 = 2 \frac{s_1(s_2 - s_0)B_2 - A_2(s_2 - s_0)}{A_1 B_2 - A_2 B_1}$$

$$A_1 B_2 = \left[e^{-k(t_1+t_2) + (t_1-t_2)\sqrt{k^2-\omega^2}} - e^{-kt_1+t_1\sqrt{k^2-\omega^2}} - e^{-kt_2-t_2\sqrt{k^2-\omega^2}} + 1 \right]$$

$$A_2 B_1 = \left[e^{-k(t_1+t_2) - (t_1-t_2)\sqrt{k^2-\omega^2}} - e^{-kt_1-t_1\sqrt{k^2-\omega^2}} - e^{-kt_2+t_2\sqrt{k^2-\omega^2}} + 1 \right]$$

$$2s = e^{-kt} \left\{ a_1 (k - \sqrt{k^2 - \omega^2}) e^{t\sqrt{k^2 - \omega^2}} + a_2 (k + \sqrt{k^2 - \omega^2}) e^{-t\sqrt{k^2 - \omega^2}} \right\}$$

$$2(s_3 - s_0) = \frac{[(s_1 - s_0)B_2 - A_2(s_2 - s_0)] e^{-kt_3 + t_3 \sqrt{k^2 - \omega^2}} + [(s_2 - s_0)A_1 - (s_1 - s_0)B_2] e^{-kt_3 - t_3 \sqrt{k^2 - \omega^2}}}{A_1 B_2 - A_2 B_1}$$

$$2s_0 = a_1 + a_2$$

$$2s_1 = e^{-kt} (a_1 e^{t\sqrt{k^2 - \omega^2}} + a_2 e^{-t\sqrt{k^2 - \omega^2}})$$

$$2s_2 = e^{-2kt} (a_1 e^{2t\sqrt{k^2 - \omega^2}} + a_2 e^{-2t\sqrt{k^2 - \omega^2}})$$

$$2s_3 = e^{-3kt} (a_1 e^{3t\sqrt{k^2 - \omega^2}} + a_2 e^{-3t\sqrt{k^2 - \omega^2}})$$

$$-k + \sqrt{k^2 - \omega^2} = c_1 \quad -k - \sqrt{k^2 - \omega^2} = c_2$$

$$c_1 + c_2 = -2k$$

$$2(s_1 - s_0) = a_1 [e^{-kt + t\sqrt{k^2 - \omega^2}} - 1] + a_2 [e^{-kt - t\sqrt{k^2 - \omega^2}} - 1]$$

$$2(s_2 - s_0) = a_1 [e^{-2kt + 2t\sqrt{k^2 - \omega^2}} - 1] + a_2 [e^{-2kt - 2t\sqrt{k^2 - \omega^2}} - 1]$$

$$2(s_3 - s_0) = a_1 [e^{-3kt + 3t\sqrt{k^2 - \omega^2}} - 1] + a_2 [e^{-3kt - 3t\sqrt{k^2 - \omega^2}} - 1]$$

$$2(s_1 - s_0) = a_1 (e^{c_1 t} - 1) + a_2 (e^{c_2 t} - 1)$$

$$2(s_2 - s_0) = a_1 (e^{2c_1 t} - 1) + a_2 (e^{2c_2 t} - 1)$$

$$2(s_3 - s_0) = a_1 (e^{3c_1 t} - 1) + a_2 (e^{3c_2 t} - 1)$$

$$a_1 = 2 \frac{(s_1 - s_0)(e^{2c_1 t} - 1) - (s_2 - s_0)(e^{c_1 t} - 1)}{(e^{c_1 t} - 1)(e^{2c_1 t} - 1) - (e^{2c_1 t} - 1)(e^{c_1 t} - 1)} = \frac{h}{N}$$

$$N = e^{(c_1 + 2c_2)t} - e^{2c_1 t} - e^{c_1 t} - 1 - e^{(2c_1 + c_2)t} - e^{2c_2 t} - e^{c_2 t} - 1$$

$$a_2 = 2 \frac{(s_2 - s_0)(e^{c_1 t} - 1) - (s_1 - s_0)(e^{2c_1 t} - 1)}{N}$$

$$N(s_3 - s_0) = (e^{3c_1 t} - 1) [(s_1 - s_0)(e^{2c_1 t} - 1) - (s_2 - s_0)(e^{c_1 t} - 1)] + (e^{3c_2 t} - 1) [(s_2 - s_0)(e^{c_2 t} - 1) - (s_1 - s_0)(e^{2c_2 t} - 1)]$$

$$N(s_3 - s_0) = (e^{-3kt + 3t\sqrt{k^2 - \omega^2}} - 1) [(s_1 - s_0)(e^{-2kt - 2t\sqrt{k^2 - \omega^2}} - 1) - (s_2 - s_0)(e^{-kt - t\sqrt{k^2 - \omega^2}} - 1)] + e^{-3kt - 3t\sqrt{k^2 - \omega^2}} [(s_2 - s_0)(e^{-kt + t\sqrt{k^2 - \omega^2}} - 1) - (s_1 - s_0)(e^{-2kt + 2t\sqrt{k^2 - \omega^2}} - 1)]$$

$$I_s = e^{-\kappa t + 6t} (a_1 e^{26t} + a_2)$$

$$I_{s_0} = a_1 + a_2$$

$$I_{s_1} = e^{-\kappa t + 6t} (a_1 e^{26t} + a_2)$$

$$I_{s_2} = e^{2(\kappa t + 6t)} (a_1 e^{46t} + a_2)$$

$$I_{s_3} = e^{-3t(\kappa + 6)} (a_1 e^{68t} + a_2)$$

$$I(s_0 - s_0) =$$

$$e^{\sqrt{\kappa^2 - \omega^2}} = z \quad e^{-\kappa t} = u$$

$$I_s = e^{-\kappa t} (a_1 z^t + a_2 z^{-t})$$

$$I_s = u (a_1 z^t + a_2 z^{-t})$$

$$I_{s_0} = a_1 + a_2$$

$$I_{s_1} = u (a_1 z^t + a_2 z^{-t})$$

$$I_{s_2} = u^2 (a_1 z^{2t} + a_2 z^{-2t})$$

$$I_{s_3} = u^3 (a_1 z^{3t} + a_2 z^{-3t})$$

$$z^t = x \quad x = e^{\pm \sqrt{\kappa^2 - \omega^2}}$$

$$I_{s_0} = a_1 + a_2$$

$$I_{s_1} = u (a_1 x + a_2 x^{-1})$$

$$I_{s_2} = u^2 (a_1 x^2 + a_2 x^{-2})$$

$$I_{s_3} = u^3 (a_1 x^3 + a_2 x^{-3})$$

$$I(s_1 - s_0) = a_1 (ux - i) + a_2 (ux^{-1} - i)$$

$$I(s_2 - s_0) = a_1 (u^2 x^2 - i) + a_2 (u^2 x^{-2} - i)$$

$$I(s_3 - s_0) = a_1 (u^3 x^3 - i) + a_2 (u^3 x^{-3} - i)$$

$$I = \begin{vmatrix} -s_1 + s_0 & ux - i & ux^{-1} - i \\ -s_2 + s_0 & u^2 x^2 - i & u^2 x^{-2} - i \\ -s_3 + s_0 & u^3 x^3 - i & u^3 x^{-3} - i \end{vmatrix} = 0 = \begin{vmatrix} s_0 - s_1 & ux - i & u - x \\ s_0 - s_2 & u^2 x^2 - i & u^2 - x^2 \\ s_0 - s_3 & u^3 x^3 - i & u^3 - x^3 \end{vmatrix} = 0$$

$s_0 - s_0$

$$x = \frac{1}{u} \quad ; \quad x = u$$

$$\begin{vmatrix} s_0 - s_1 & i & i \\ s_0 - s_2 & ux + i & u + x \\ s_0 - s_3 & u^2 x + ux + i & u^2 + ux + x^2 \end{vmatrix} (u-x)(ux-i) = 0$$

$$\begin{vmatrix} 1 & 1 & 1 \\ 2 & u+i & u+x \\ 3 & u^2+ux+i & u^2+ux+x^2 \end{vmatrix} = 0$$

$$I = \begin{vmatrix} s_0 - s_1 & ux - i & ux^2 - x^3 \\ s_0 - s_2 & u^2 x^2 - i & u^2 x - x^3 \\ s_0 - s_3 & u^3 x^3 - i & u^3 - x^3 \end{vmatrix} = 0 = \begin{vmatrix} s_0 - s_1 & 1 & x^2(u-x) \\ s_0 - s_2 & u+i & x(u^2-x^2) \\ s_0 - s_3 & u^2+ux+i & u^3-x^3 \end{vmatrix} = 0$$

$$x = \frac{1}{u}$$

$$\begin{vmatrix} s_0 - s_1 & i & x^2 \\ s_0 - s_2 & ux + i & x(u+x) \\ s_0 - s_3 & u^2+ux+i & u^2+ux+x^2 \end{vmatrix} = 0$$

$$a_1 = 2 \frac{(s_1 - s_0)(u) \begin{vmatrix} s_1 - s_0 & ux^{-1} - i \\ s_2 - s_0 & u^2 x^{-2} - i \end{vmatrix}}{\begin{vmatrix} ux - i & ux^{-1} - i \\ u^2 x^2 - i & u^2 x^{-2} - i \end{vmatrix}}$$

$$\frac{x^3 - i}{x^2 - x^2} : x - i = x^2 + x + i$$

$$a_1 (u - \sqrt{\kappa^2 - \omega^2}) + a_2 (u + \sqrt{\kappa^2 - \omega^2}) = 0$$

$$a_1 (ux - i) + a_2 (ux^{-1} - i) + 2(s_0 - s_1) = 0$$

$$a_1 (u^2 x^2 - i) + a_2 (u^2 x^{-2} - i) + 2(s_0 - s_2) = 0$$

$$\begin{vmatrix} u - \sqrt{\kappa^2 - \omega^2} & u + \sqrt{\kappa^2 - \omega^2} & 0 \\ ux - i & ux^{-1} - i & s_0 - s_1 \\ u^2 x^2 - i & u^2 x^{-2} - i & s_0 - s_2 \end{vmatrix} = 0$$

MAGYAR
TUDOMÁNYOS AKADEMIA
KÖNYVTÁRA

$$\begin{vmatrix} s_0 - s_1 & i & x^2 \\ s_0 - s_2 & ux + i & ux + x^2 \\ s_0 - s_3 & u^2x + ux + i & u^2 + ux + x^2 \end{vmatrix} = 0 = \begin{vmatrix} s_0 - s_1 & 1 & x^2 \\ s_1 - s_2 & ux & ux \\ s_2 - s_3 & u^2x^2 & u^2 \end{vmatrix} = 0$$

$$(s_0 - s_1)[u^3x - u^3x^3] - (s_1 - s_2)[u^2 - u^2x^4] + (s_2 - s_3)[ux - ux^3] = 0$$

~~Boz~~

$$(s_0 - s_1)u^3x(i - x^2) - (s_1 - s_2)u^2(i - x^4) + (s_2 - s_3)ux(i - x^2) = 0$$

$$1 - x^2 = 0 \\ x = 1$$

$$(s_0 - s_1)u^2x - (s_2 - s_3)u(1 + x^2) + (s_2 - s_3)x = 0$$

$$(s_0 - s_1)u^2x - (s_1 - s_2)u - (s_2 - s_3)ux^2 + s_2 - s_3x = 0$$

$$(s_1 - s_2)ux^2 - [(s_0 - s_1)u^2 + (s_2 - s_3)]x + (s_1 - s_2)u = 0$$

$$x^2 - \frac{(s_0 - s_1)u^2 - (s_2 - s_3)}{(s_1 - s_2)u}x + i = 0$$

~~$x = \frac{s_0 - s_1}{s_1 - s_2}$~~

$$x = \frac{(s_0 - s_1)u^2 + (s_2 - s_3) + \sqrt{[(s_0 - s_1)u^2 + (s_2 - s_3)]^2 - 4(s_1 - s_2)^2u^2}}{2(s_1 - s_2)u}$$

$$e^{\pm \sqrt{k^2 - \omega^2}t} = \frac{(s_0 - s_1)e^{-kt} + (s_2 - s_3) + \sqrt{[(s_0 - s_1)e^{-2kt} + (s_2 - s_3)]^2 - 4(s_1 - s_2)^2e^{-2kt}}}{2(s_1 - s_2)e^{-kt}}$$

$$t = 10 \text{ m.}$$

$$s_1 - s_0 = 1.9$$

$$s_2 - s_1 = 2.5$$

$$s_3 - s_2 = 3.8$$

$$\log(e^{-kt}) = -kt \log e$$

$$s_1 e^{-kt} = 0.9978 - i$$

$$s_2 e^{-2kt} = 0.9956 - i$$

$$s_3 - s_1 = \frac{0.2788}{0.2744}$$

$$s_1 e^{-2kt} = 0.9956 - i$$

$$s_2 e^{-kt} = 0.9978 - i$$

$$s_3 - s_2 = \frac{0.5576}{0.021}$$

$$s_1 e^{-kt} = 0.9978 - i$$

$$s_2 e^{-2kt} = 0.9956 - i$$

$$s_3 - s_1 = \frac{0.7958}{0.021}$$

$$s_1 e^{-kt} = 0.9978 - i$$

$$k = 0.000519$$

$$k = 0.715043 - 4$$

$$s_1 k t = 0.715043 - 3$$

$$= -2.284957$$

$$s_2 e^{-kt} = 0.637784 - 1$$

$$s_2 k t = 0.715043 - 3$$

$$0.352827 - 3$$

$$s_1 e^{-kt} = 0.99775 - i$$

$$s_2 - s_1 = \frac{0.2788}{0.2766 - i}$$

$$e^{\pm \sqrt{k^2 - \omega^2}t} = \frac{5.7 \pm 4.3}{2.8}$$

$$s_3 - s_2 = 0.3979$$

$$s_1 e^{-kt} = 0.9978 - i$$

$$s_2 - s_1 = \frac{0.6967}{0.021}$$

$$5.0$$

$$s_1 e^{-kt} = 0.9978 - i$$

$$s_2 e^{-2kt} = 0.9956 - i$$

$$s_3 - s_1 = \frac{0.6967}{0.021}$$

$$5.0$$

$$e^{\pm \sqrt{k^2 - \omega^2}t} = \frac{-5.7 \pm 2.8}{-5.0}$$

$$= \frac{2.9}{5} \pm \frac{8.5}{5}$$

$$= +0.58, +1.7$$

$$(s_0 - s_1)e^{-kt} = -1.89$$

$$s_2 - s_3 = -3.8$$

$$\int \frac{1}{t} dt = \dots + 1.957$$

$$(s_0 - s_1)e^{-kt} = -1.88$$

$$s_2 - s_3 = -3.8$$

$$-5.7$$

$$-5.7$$

$$\frac{32.5}{14.3} = \frac{32.5}{7.8}$$

$$\frac{18.2}{7.8}$$

$$4.27$$

$$x = 1.7$$

$$s_2 - s_1 = 2.5$$

1.9

$$(s_1 - s_0)u = 1.89$$

$$4x - 1 = 0.7$$

$$(s_2 - s_1)x = 4.25$$

$$\frac{1-x^2 = -1.89}{-1.323}$$

$$d = -2.36$$

$$a_1 = 42 \frac{2.36}{1.32} = -2 \frac{1.18}{0.66} = +3.54$$

$$4x(s_1 - s_0) = 1.33$$

$$4 - x = 0.7$$

$$s_2 - s_1 = 2.5$$

$$\frac{1-x^2 = -1.89}{-1.323}$$

$$h_2 = +1.17$$

$$N = -1.323$$

Opt. 21-22

4h = 135,2
 30m = 16,9
 10m = 5,63
 20m = 11,26
 40m = 22,52

1h 30m = 50,8 t₁ = 1200
 1h = 33,8
 s₀ = 2 + 37,4
 s₁ = 2 + 19,5
 s₂ = 2 - 5,1
 s₃ = 2 - 20,5

21,3
 17,7
 3,6
 1,8

3,6
 6,6
 21,0
 11,5
 7,1

19,5
 21,5
 2,0
 1,0
 20,5

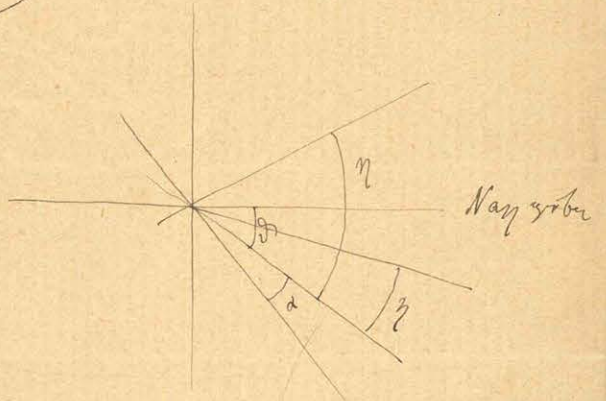
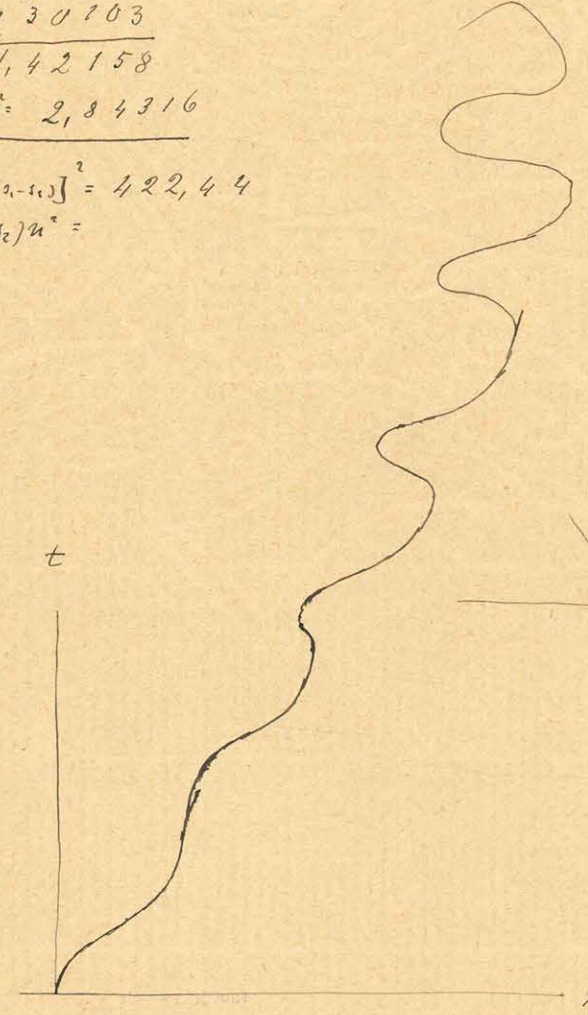
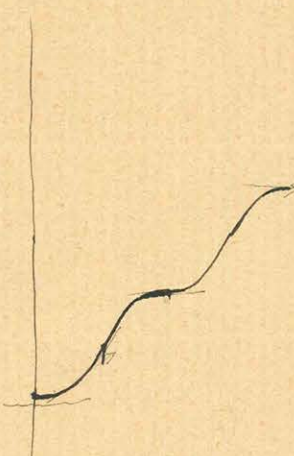
s₀ - s₁ = 17,9
 s₁ - s₂ = 24,6
 s₂ - s₃ = 15,4

d = 0,000519

∫α = 0,71504-4
 ∫t_i = 3,07918
 0,29422-1
 0,63778-1
 0,43200-1
 1e^{-αt}
 ∫u = 0,72961-1
 ∫u² = 0,45922-1
 (s₀-s₁)u = 1,25285
 (s₁-s₂)u² = 0,71207
 (s₀-s₁)u² = 5,1531
 s₂-s₃ = 17,4
 20,5531
 (s₀-s₁)u² + (s₂-s₃) = 20,5531

∫20,5531 = 1,31288
 ∫()² = 2,62536
 s₁-s₂ = 1,39094
 ∫u = 0,72961-1
 ∫2 = 0,30103
 ∫2(s₁-s₂)u = 1,42158
 ∫4(s₁-s₂)u² = 2,84316
 [(s₀-s₁)u² + (s₂-s₃)]² = 422,44
 4(s₁-s₂)u² =

∫s₀-s₁ = 1,25285
 ∫s₁-s₂ = 1,39094
 ∫s₂-s₃ = 1,18752



$$\tau \alpha = C \sin 2\delta$$

$$-\tau(\alpha + \eta) - t(\eta + \delta) C \sin 2(\eta - \delta) - \tau \alpha + C \sin 2\delta$$

$$-\tau \alpha - \tau \eta - C \sin 2(\eta - \delta)$$

$$-\tau \eta - C \sin 2\delta - C \sin 2(\eta - \delta)$$

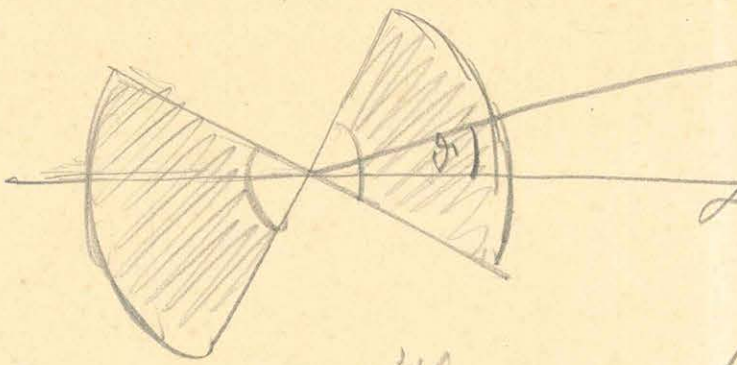
$$-\tau(\alpha + \eta) - C \sin 2(\eta - \delta)$$

$$-\tau \eta - C \sin 2\delta - C \sin 2(\eta - \delta)$$

$$-\tau \eta - C \sin 2\delta$$

$$-\tau \alpha + C \sin 2\delta = 0$$

$$\delta = 0$$



How thick

$$F = \left(1 + \frac{\partial V}{\partial x^2} K\right)$$

$$\frac{1}{2} \frac{\partial^2 V}{\partial x^2} = a + b \cdot \cos 2\alpha$$

$$T \text{ horizontal} = -0,19$$

$$a = 0,00000059592$$

$$K = 38000$$

$$b = 0,00000086014$$

$$0,000005$$

Wiederum Kettenlinie, nur

$$\alpha = 90^\circ$$

$$75$$

$$60$$

$$45$$

$$30$$

$$15$$

$$0$$

$$\alpha = 24^\circ$$

$$\frac{1}{2} \frac{\partial^2 V}{\partial x^2} = 0,000000029747$$

$$\frac{\partial^2 V}{\partial x^2} = 0,00000039494$$

$$K \frac{\partial^2 V}{\partial x^2} = 0,001500772$$

$$\frac{1}{2} \frac{\partial^2 V}{\partial x^2} = 0,00000117084$$

$$\frac{\partial^2 V}{\partial x^2} = 0,00000234168$$

$$K \frac{\partial^2 V}{\partial x^2} = 0,0899838$$

$$\epsilon_2 = 45,8 - 0,0670,078$$

$$\epsilon_1 = 15,4 - 0,045$$

$$\frac{46}{30} 0,078$$

$$\frac{15,4}{30} 0,045$$

$\theta = 35^\circ$
 $\left(k \frac{\partial V}{\partial x}\right)_2 = 0.0076002$

$\left(k \frac{\partial V}{\partial x}\right)_1 = 0.0452472$
 $\frac{\epsilon_1}{\epsilon_2 - \epsilon_1} = 1.22222$

0.0223580×1.8182
 178864
 22358
 178864
 44716

 0.0406513156
 67

$\theta = 35^\circ$
 $\epsilon_1 = 15.4$
 $\epsilon_2 = 280$

$280 \cdot 15.4 = 1.8182$
 $\frac{1260}{280}$

 1260

$\epsilon_1 - \epsilon_2 = 12.6$
 $\frac{\epsilon_1}{\epsilon_2 - \epsilon_1} = \frac{15.4}{20.4} = \frac{15.4}{12.6}$

$154 \cdot 204 = 0.5066$
 $\frac{2000}{1760}$

$154 \cdot 176 = 1.222$
 $\frac{280}{280}$

 280

0.0226851×0.5066
 1361106
 1361106
 1134255

 0.1149227166
 0.0114923
 0.77977

 $\tau = 0.08942$

$\theta = 30^\circ$
 $\theta = 45^\circ$

 $\tau = -0.08942$

$\left(k \frac{\partial V}{\partial x}\right)_1 = 0.0452472$
 $\left(k \frac{\partial V}{\partial x}\right)_2 = 0.077927$
 $\frac{\epsilon_1}{\epsilon_2 - \epsilon_1} = 0.5066$
 $\epsilon_1 = 45.8$
 $\epsilon_2 = 15.4$

0.0223580×1.2222
 0447160
 0447160
 0447160
 223580

 0.027301476
 067600

 0.094901

$\tau = -0.09490$

$\theta = 35^\circ$
 $\theta = 45^\circ$

$\frac{\epsilon_1}{\epsilon_2 - \epsilon_1} (1) - \frac{\epsilon_2}{\epsilon_1 - \epsilon_2} (2)$

$47543.2:4112 = 11.562$
 $\frac{6423}{23112}$

 25520

 8480

$1.5 \cdot 0.78$
 12

11.55649
 11.55585

 23.11234

 11.55617

11.55738
 11.55731
 11.55728
 55767
 723
 660

11.55665
 534
 335
 525
 546

 2140

 11.55538

157

 11.55726

$$a = 0.000000595292$$

$$b = 0.00000186014$$

~~0.000~~

$$\underline{\delta = 45^\circ} \quad \varepsilon = 15.4$$

$$\left(\frac{\partial^2 V}{\partial x^2}\right)_t = 0.00000119058$$

119058

$$\left(k \frac{\partial^2 V}{\partial x^2}\right)_t = 0.0452422$$

$$\underline{\delta = 35^\circ} \quad \varepsilon = 28.0$$

$$\cos 2\delta = \cos 70^\circ = 0.3420$$

$$b \cdot \cos 2\delta = 0.0000018601 \times 0.3420$$

55803

74404

37202

$$0.0000006361542 \times 2$$

$$2b \cos 2\delta = 0.0000012723084$$

$$2a = 0.00000119058$$

$$\frac{\partial^2 V}{\partial x^2} = \frac{0.00000246389}{\dots} \times 38000$$

738867

1970312

$$\left(k \frac{\partial^2 V}{\partial x^2}\right) = 0.09358982000$$

$$\underline{\delta = 30^\circ} \quad \varepsilon = 45.8$$

$$\cos 2\delta = \frac{1}{2}$$

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$$\frac{\partial^2 V}{\partial x^2} = \frac{0.00000119058 + 0.00000186014}{0.00000305072} \quad 38000$$

915216

2440576

$$\left(k \frac{\partial^2 V}{\partial x^2}\right) = 0.11592736000$$

~~40°~~

$$\begin{aligned} \theta = 45^\circ & \quad \epsilon_1 = 15.4 \\ \theta = 35^\circ & \quad \epsilon_2 = 28.0 \end{aligned}$$

$$\frac{\epsilon_1}{\epsilon_2 - \epsilon_1} = \frac{15.4}{12.6} = 1.2222$$

$$(2) = 0.09359$$

$$(1) = \frac{0.04524}{}$$

$$(1) - (2) = -0.04835 \quad \begin{array}{r} 1.2222 \\ 9670 \\ 9670 \end{array}$$

$$\frac{\epsilon_1}{\epsilon_2 - \epsilon_1} [(1) - (2)] = -\frac{0.05908370}{9670}$$

$$(2) = \frac{0.09359}{}$$

$$\tau = -0.15267$$

$$\underline{\underline{\tau = -0.15267}}$$

$$\begin{aligned} \theta = 45^\circ & \quad \epsilon_1 = 15.4 \\ \theta = 30^\circ & \quad \epsilon_2 = 45.8 \end{aligned}$$

$$\frac{\epsilon_1}{\epsilon_2 - \epsilon_1} = \frac{15.4}{30.4} = 0.5066$$

$$(2) = 0.11593$$

$$(1) = \frac{0.04524}{}$$

$$(1) - (2) = -\frac{0.07069}{35345} = -0.507$$

$$ \frac{49483}{}$$

$$\frac{\epsilon_1}{\epsilon_2 - \epsilon_1} [(1) - (2)] = -0.03583983$$

$$(2) = \frac{0.115927}{}$$

$$\tau = -0.151767$$

$$\underline{\underline{\tau = -0.15177}}$$

4h. 13 18.1

14400
780
181
151981

15198.10 : 1156 = 1315
3639
1718
5621

17

9h. 40.3

580.3 : 11.56

58030 : 1156 = 512
2300

580.3 : 52 = 11.5

70
193
380

4h. 31 21.2
7h. 45 19.9
3h. 13 58.7

15198.1 : 1315 = 11.55741

2048
7330
7550
9750
8450
1900

580.3 : 45 = 1
130

8m. 40.3

480

520.3 : 45 = 11.562

70
253
280
100

10800

780
587

116387 : 11.56

116387 : 1156 = 100.7
787

116387 : 107 = 11.52
153
528
237

4h. 14 40.1
8h. 57 43.1
13h. 13 23.2

36 x 13

108
46800
720
23.2
47543.2

10m. 12.0

600

612.0 : 11.56 =

61200 : 1156 = 53
3400

1163870 : 1156 = 1007
7870

612.0 : 53 = 11.547

82
290
250
380

6m. 20.9

360
209

3809 : 11.56

38090 : 1156 = 33
3410

116387 : 1007 = 11.55779

1568
5617
5820
7850
8010
9610

61200 : 115

612.0 : 52 = 11.7

92
400

47543200 : 11557 = 4114
13152

15950
43930

3m. 51.1

180

251.1 : 11.56

25110 : 1156 = 22
1990

3809 : 33 = 11.542

50
179
140
80

47543.2 : 4114 = 11.55640

6403
22890
23200
26300
16160

251.1 : 22 = 11.41

31
90
30

2511 : 21 = 11.9

41
201

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KÖNYVTÁRA

$$D_0 = D_2 \left(\frac{D_2}{D_1} \right)^{\frac{t_0-t_2}{t_2-t_1}} \left(\frac{\sin \frac{\pi t_1}{T}}{\sin \frac{\pi t_2}{T}} \right)^{\frac{t_0-t_2}{t_2-t_1}} \frac{\sin \frac{\pi t_0}{T}}{\sin \frac{\pi t_2}{T}}$$

$$-\alpha = \frac{1}{t_2-t_1} \log \left(\frac{D_2}{D_1} \frac{\sin \frac{\pi t_1}{T}}{\sin \frac{\pi t_2}{T}} \right)$$

Example 3.

24	35.2	17m.	13.5
41m.	48.6	17m.	13.4
59m.	2.0	17m.	12.9
16m.	14.9	17m.	

Dec. 3

$$t_1 = 2m. 14.2 = 134.2$$

$$t_2 = 5m. 23.9 = 323.9$$

$$D_1 = 2.127753$$

$$D_2 = 0.497150$$

$$\frac{D_2}{D_1} = 2.624903$$

$$D = 3.025552$$

$$0.599351-1$$

$$\frac{\pi t_1}{T} = 0.397513 = 22^\circ 40' 5''$$

$$383972$$

$$013541$$

$$t_2 - t_1 = 189.7$$

$$\frac{\pi t_0}{T} = 84^\circ 18' 15''$$

$$= 1.466077$$

$$005236$$

$$73$$

$$1.471386$$

$$D \frac{\pi t_0}{T} = 0.167729$$

$$D \frac{\pi t_1}{T} = 0.497150$$

$$0.670579-1$$

$$3.025552$$

$$2.696131$$

$$D t_0 = 496.7$$

$$t_2 = 323.9$$

$$t_0 - t_2 = 172.8$$

$$D t_0 - t_2 = 2.237544$$

$$D t_2 - t_1 = 2.278067$$

$$D \frac{t_0 - t_2}{t_2 - t_1} = 0.959422-1$$

$$D = 0.386321-2$$

$$0.345798-2$$

$$D \frac{\sin(0)}{\sin(2)} = 0.084642$$

$$\frac{t_0 - t_2}{t_2 - t_1} = -0.022172$$

$$D \sin \frac{\pi t_1}{T} = 0.587838-1$$

$$D \sin \frac{\pi t_2}{T} = 0.913208-1$$

$$0.674630-1$$

$$301030$$

$$0.975660-1$$

$$s = -0.024340$$

$$D^2 s = 0.386321-2$$

$$637784-1$$

$$0.248532-2$$

$$D t_2 - t_1 = 2.278067$$

$$D(4\alpha) = 0.470470-4$$

$$D = 3.025552$$

$$D \alpha = 0.496022-1$$

$$D \frac{\pi t_1}{T} = 0.497150$$

$$D \log \frac{\pi t_0}{T} = 1.001128$$

$$D \frac{D_0}{D_1} \frac{\sin(1)}{\sin(2)} = 0.975660-1 = 93$$

$$D \sin(0) = 0.998850-1$$

$$D \sin(2) = 0.913208-1$$

$$0.084642$$

$$0.977828-1$$

$$398180$$

$$301030$$

$$1.161680$$

$$D_0 = 14.5104 = 720^\circ + 111^\circ 23' = 831.4$$

$$12.5664$$

$$1.9440$$

$$1.9373$$

$$0.067$$

316:213=15
213
1030

$$[0.003077-1] = [1.161680] e^{-\alpha(5h. 14m. 26.8s.)}$$

$$\begin{array}{r} 5h = 18000 \\ \quad 840 \\ \quad 26.8 \\ \hline 18866.8 \end{array}$$

$$\begin{array}{r} 0.003077-1 \\ 1.161680 \\ \hline [0.841397-3] = e \end{array} \quad -\alpha. 18866.8$$

$$+ 2.158603 = 18866.8\alpha. 6e \quad \delta e = 0.4342945$$

$$\begin{array}{r} \delta(2\cdots) = 0.3341728 \\ \delta 188\cdots = 4.2756982 \\ \delta 2e = 0.6377843-1 \\ \quad 3.9134825 \\ \delta(2\cdots) \quad 0.3341728 \\ \delta \alpha = 0.4206903-4 \\ \hline \alpha = 0.000263445-2 \end{array}$$

$$\begin{array}{r} 4206903-4 \\ 3.0253059 \\ \hline 0.4459962 \\ \quad 6377843 \\ \hline 0.0838805 \\ 0.121278 \\ 0.878722-1 \end{array}$$

$$\begin{array}{r} 0.4451495-4 \\ 1030 = 3.0128372 \\ \hline 0.4529867-1 \\ \quad 6377843-1 \\ \hline 0.0952210-1 \end{array}$$

$$- 0.124673$$

$$\delta = 0.875327-1$$

$$\delta = 0.75046$$

$$(\alpha = 0.000295$$

$$[0.003077-1] = [1.161680] e^{-\alpha(4h. 57m. 13.6s.)}$$

$$\begin{array}{r} 4h = 14400 \\ \quad 3420 \\ \quad 13.6 \\ \hline 14833.6 \end{array}$$

$$[0.841397-3] = e^{-14833.6\alpha}$$

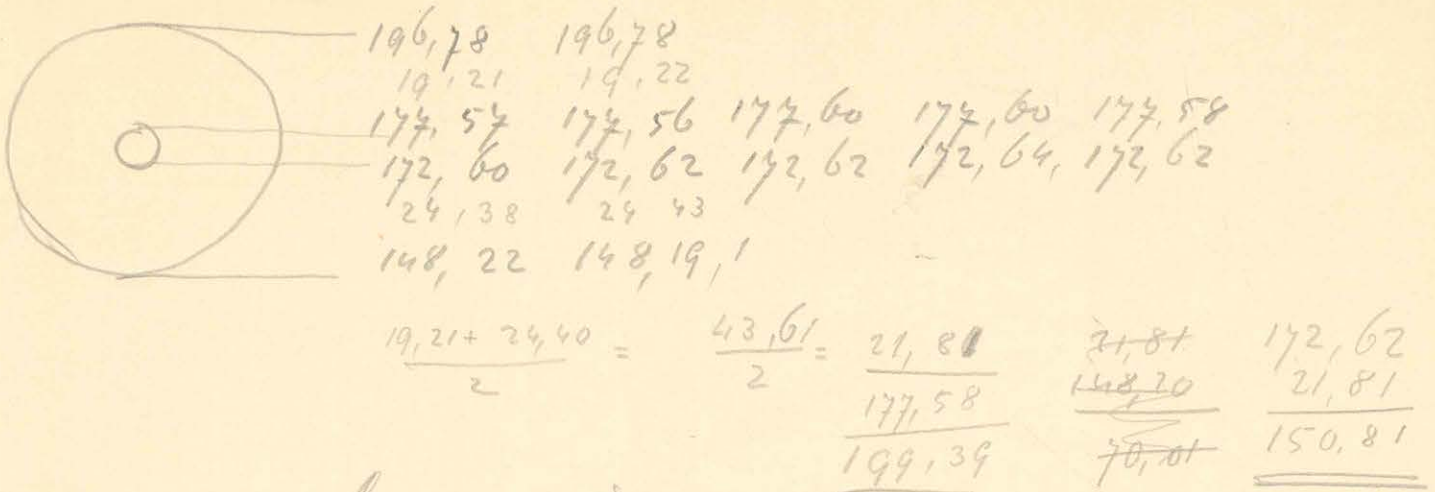
$$\begin{array}{r} 514833.6 = 4.2512390 \\ 5(2\cdots) = 0.3341728 \end{array}$$

$$\begin{array}{r} 4.2512390 \\ \quad 6377843-1 \\ \hline 3.8890233 \\ \quad 0.3341728 \\ \hline \delta \alpha = 0.4451495-4 \end{array}$$

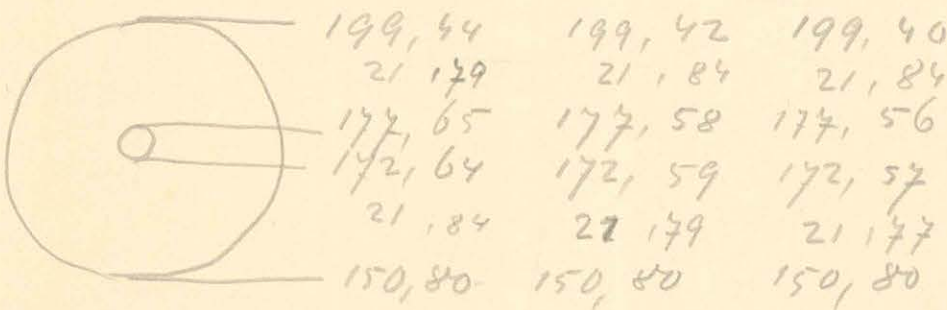
$$\delta \alpha = 0.4451495-4$$

$$\begin{array}{r} 0.4451495-4 \\ 1035 = 3.0149403 \\ \hline 0.4600898-1 \\ \quad 6377843 \end{array}$$

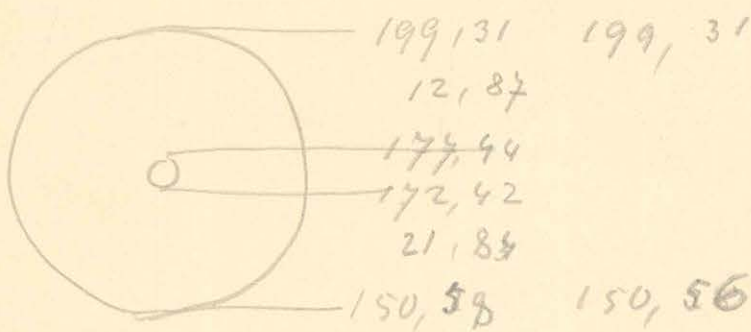
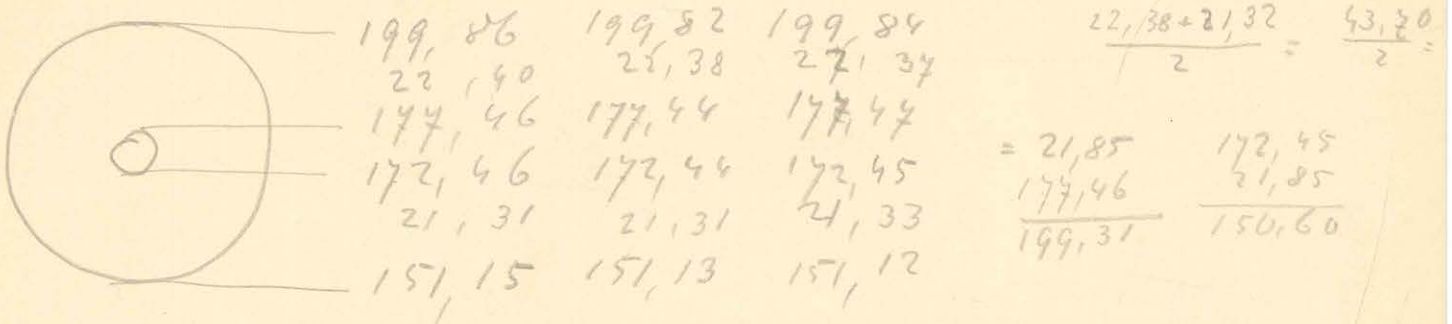
I. Compensats' surf.



Compensats' surf myesajal varhutekva



II. Compensats' surf.



Myesajal kvi: $155 - 331$ $\frac{155 + 331}{2} =$
 $154,5 - 332$
 $155 - 331$ $\frac{486}{2} = 243$

Crö kvi = 243

En alle likvid 243- r a allvattam

Laminat

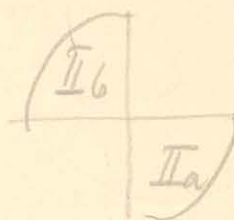
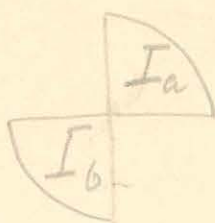
Wojni kőze = 163 - 339

február 28

Csi kőzép 251

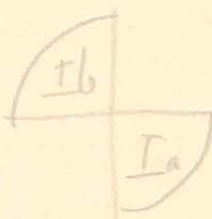
I' allai

csulokán 4h. 58m. 246,0



II' allai

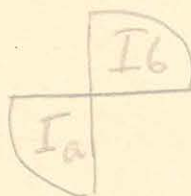
5h. 50m. 256,2
 51m. 256,1
 82 256,0



II' marad

III' allai

6h. 44m. 246,0
 45 246,1
 46m. 246,2



II' marad

IV' allai

9h. 75m. 254,0



I' allai

10h. 18m. 245,8
 19 245,9
 20 245,9

MAGYAR TUDOMÁNYOS AKADÉMIA KÖNYVTÁRA

februari 29

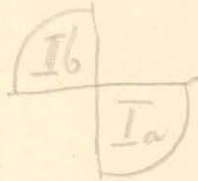
I alla

8 h. 15 m. 247,7



II alla

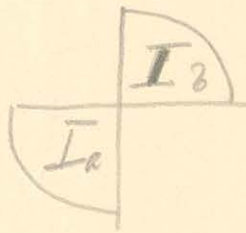
9 h. 7 m. 253,1
8 m. 253,1
9 m. 253,0



II namad

III alla

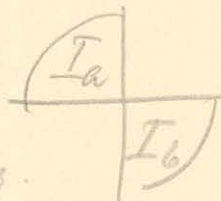
10 h. 36 m. 248,2
37 248,2
38 248,2



II namad

IV alla

11 h. 31 m. 250,6
32 m. 250,6



ca inga wärkvid väsen m. s.

12 h. 5 m. 250,1
6 m. 250,1

12 h. 32 250,1
33 m. 250,1

I alla

detentor 7 h. 57 m. 248,2

II alla

7 h. 30 m. 252,0

III alla

9 h. 58 m. 248,7

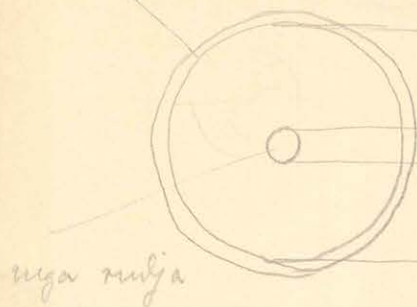
IV alla

11 h. 27 m. 251,0

I alla

12 h. 19 m. 248,8
20 248,8

II. comp. sufkarikeja | alaksi munnest a pinnest ben.



198,30	198,32	198,30	198,30	198,28
21,80	21,72	21,71	21,72	21,67
176,60	176,60	176,59	176,58	176,61
170,99	171,10	171,12	171,12	171,10
21,37	21,52	21,52	21,54	21,52
149,62	149,58	149,60	149,58	149,58

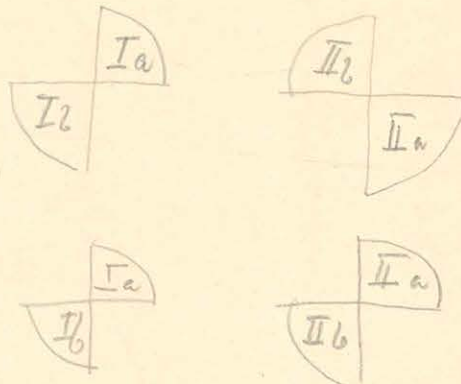
mya mija

1892 februar 22 detutan

I alles

3h	0m	249,9
	1m	249,9
	2m	249,9

a comp. sufkarikeja a pinnest ben



II alles

4h	28m	248,2
	29m	248,2
	30	248,2

III alles

5h	27m	251,9
	28	251,9
	29	251,9

IV alles

6h	23m	248,3
	24	248,3
	25m	248,3

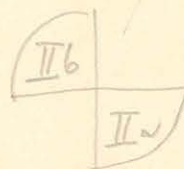
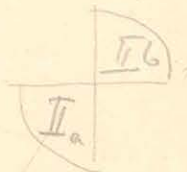
I alles

7h	30	249,9
	32	249,9

I myanar

I myanar

I myanar



február 23. délután

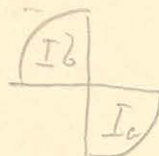
I állás

2h. 41m. 250,5



II állás

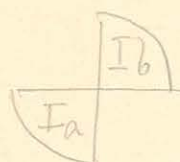
3h. 32m. 231,9
33 232,2
34 232,6



II marad

III állás

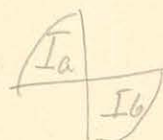
5h. 0m. 250,9
1m. 250,9
2m. 251,0



II marad

IV állás

6h. 15 239,5
16 239,5
17 239,4

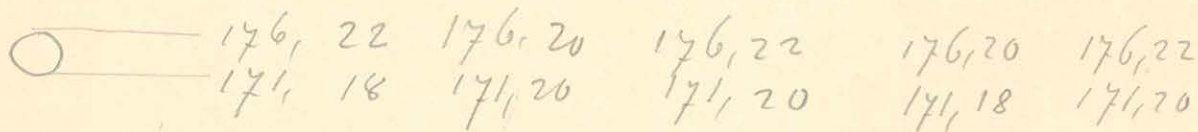
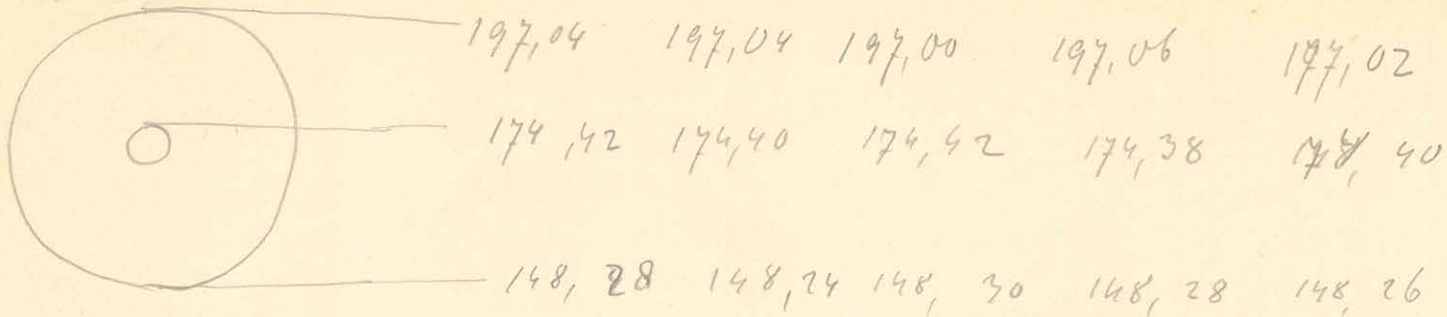


II marad

I állás

este 10h. 45m. 250,5

I comp. sud



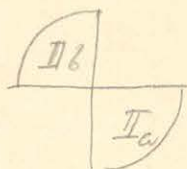
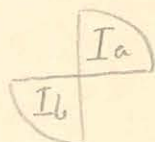
I com. sud all'aria



Febbraio 24

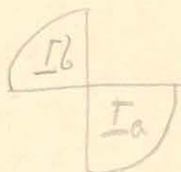
I altar

9h. 15 235,4



II altar

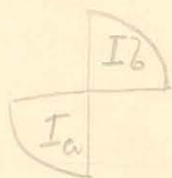
10h. 42 230,8
 43 230,8
 44 230,8



II maraud

III altar

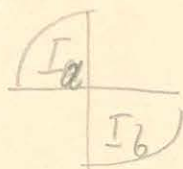
12h. 45m. 236,0
 46 236,0
 47 236,0



II maraud

IV altar

3h. 0 m. 229,9
 1 229,9
 2 229,9



I altar

5h. 15m. 235,0
 17m. 235,0

182° 35,2
46,3
24,3
53,0
24,1

$0,75$
 $0,75 \cdot 1,75 = 0,43$
 $\frac{200}{500} = 0,4$

43×38
 $\frac{129}{344}$
 $\frac{1,634}{1,634}$

$\frac{56}{86}$
 $9,4$

$0,18$
 $\frac{79,6}{70,8}$
 $\frac{8,8}{8,8}$

427° 49,4
28,4
44,8
31,6
40,2
32,9
38,3
33,8
36,2
35,3
35,4
35,8

21,0
16,4
13,2
94,1
2,8
5,4
4,5
2,9
4,4
0,1
0,4

3222
2148
1206
9590
8921
7324
6532

2420
0801
9828
8285
8169
6500
4903
4111

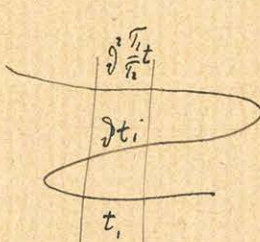
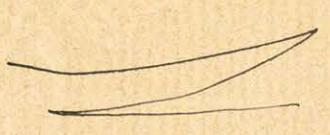
$\frac{94,2}{56,8}$
 $38,4$
 $\frac{76,6}{71,0}$
 $5,6$
 $\frac{70,2}{74,8}$
 $4,6$
 $\frac{26}{208}$
 $0,5$

$\frac{70,6}{78,4}$
 $8,8$
 $\frac{56}{418}$
 $\frac{1,00}{1,00}$
 $\frac{73,8}{70,4}$
 $\frac{70,2}{72,8}$

$\frac{8,8}{70,4}$
 $\frac{1,57}{1,57}$
 $\frac{78}{624}$
 $\frac{1,40}{1,40}$
 $\frac{3,7x}{272}$
 $\frac{0,6}{0,6}$
 $\frac{41}{328}$
 $\frac{25}{200}$

(11)

49,4	40,4	5,0	42,6	+8,8	44,2
28,4	35,4	3,8	33,8	-7,8	32,4
44,8	39,2	3,8	40,8	+5,6	41,8
31,6	35,5	3,8	34,6	-4,1	35,9
40,2	37,4	1,9	38,3	+3,4	38,9
32,9	35,2	2,2	34,2	-2,6	34,2
38,3	36,4	1,2	37,0	+2,5	37,5
33,8	35,0	1,4	34,5	-1,9	34,2
36,2	36,1	1,1	36,4	+1,1	36,6
35,3	35,3	0,8	35,2	-0,8	35,3
35,4	35,6	0,3	35,6	+0,6	35,5
35,0	-	-	-	-	-



$\frac{49,4}{134,4}$
 $\frac{183,8}{116,8}$
 $\frac{62,0}{85,2}$
 $31,6$

$\frac{62,0 \times 0,08}{536}$

$T_1 = a - dt_1 - d \frac{\sqrt{t_1}}{\sqrt{\pi}} = a - dt(1 + d \frac{\sqrt{t_1}}{\sqrt{\pi}})$

$T_2 = b + dt + t = b + t(1+d)$

$T_1 = a - \frac{T_2 - b}{1+d} d(1 + d \frac{\sqrt{t_1}}{\sqrt{\pi}})$

$= a - \frac{T_2 - b}{1+d} d(1 + d + d(\frac{\sqrt{t_1} - \sqrt{t_2}}{\sqrt{\pi}}))$

$= a - d(T_2 - b) + \frac{d^2}{1+d} \frac{T_2 - b}{\sqrt{\pi}} (\sqrt{t_1} - \sqrt{t_2})$

$T_1 = a + bd - dT_2 + d(\sqrt{t_1} - \sqrt{t_2}) - \frac{d^2}{1+d} \frac{T_2 - b}{\sqrt{\pi}} (\sqrt{t_1} - \sqrt{t_2})$

$T(1+d) = a + bd + d(\sqrt{t_1} - \sqrt{t_2}) [1 - \frac{d}{1+d} \frac{T_2 - b}{\sqrt{\pi}}]$

$T_1 = t_1 + \frac{d}{1+d} (\sqrt{t_1} - \sqrt{t_2}) \left[\frac{T_2 + d\sqrt{t_2} - d\sqrt{t_1} + db}{\sqrt{\pi}} \right]$

$T_1 = t_1 + \frac{d}{1+d} (\sqrt{t_1} - \sqrt{t_2}) \left\{ \frac{T_2 + db}{\sqrt{\pi}} \right\}$



$$T_1 = a - v^2 t - vt = a - vt(1+v)$$

$$T_2 = b + vt + t = b + t(1+v)$$

$$-\frac{T_1 - a}{v} = T_2 - b$$

$$-T_1 = -a + vT_2 - v^2 t$$

$$T_1 = a + v^2 t + vT_2$$

$$T_1 = a + v^2 t + vT_2 = v(T_2 - T_1)$$

$$T_1 = a + v^2 t - vT_2 = a + v^2 t - vT_1 + v(T_1 - T_2)$$

$$T_1 = \frac{a + v^2 t}{1+v} + \frac{v}{1+v} (T_1 - T_2)$$

$$T_1 = t_1 + k(T_1 - T_2) = t_1 + k(t_1 - t_2) + k^2(T_1 - 2T_2 + T_3) = t_1 + k(t_1 - t_2) + k^2(t_1 - 2t_2 + t_3) + k^3(T_1 - 3T_2 + 3T_3 - T_4)$$

$$T_2 = t_2 + k(T_2 - T_3) = t_2 + k(t_2 - t_3) + k^2(T_2 - 2T_3 + T_4)$$

$$T_3 = t_3 + k(T_3 - T_4) = t_3 + k(t_3 - t_4) + k^2(T_3 - 2T_4 + T_5)$$

$$T_4 = t_4 + k(T_4 - T_5) = t_4 + k(t_4 - t_5) + k^2(T_4 - 2T_5 + T_6)$$

$$T_1 - T_2 = t_1 - t_2 + k(T_1 - 2T_2 + T_3)$$

$$T_2 - T_3 = t_2 - t_3 + k(T_2 - 2T_3 + T_4)$$

$$T_3 - T_4 = t_3 - t_4 + k(T_3 - 2T_4 + T_5)$$

$$T_1 - 2T_2 + T_3 = t_1 - 2t_2 + t_3 + k(T_1 - 3T_2 + 3T_3 - T_4)$$

17,5^m
175^m
10500

0,60206-1
0,021-40

7,3 17^m

38,3 36,4
33,8 35,0
36,4 36,1
35,3 35,3
35,4 35,6
35,8

$t_k - t_{k+1}$	$t_k - 2t_{k+1} + t_{k+2}$
1,4	0
1,1	0,2
0,8	
0,3	

37,0	36,8
34,6	32,8
36,4	35,8
35,2	33,5
35,8	35,2
35,	

$$k^2(t_1 - t_2 + t_3 - t_2)$$

87,45
87,13
744
749
744
120
120
11746

3222
2428
0894
120
120
0808
2415
3222

MAJALAH KONGRES ANADAMA KONYIARA

17,8 89,0
17,1 35,5
210, 3,5 x 6
210, 21,0
210 x 0,0001 =
0,02

1/2
 $0,65635$ $0,65635$
 $1V = 3,60443$ $1W = 3,69673$
 $\underline{3,26088}$ $\underline{3,35308}$
 $.1823,0$ $2254,2$
 $V = \underline{1840,1}$ $\underline{7512,3}$
 $82,9$ $5252,6$

$582,9 = 1,91855$
 $5252,6 = 3,72079$
 $\underline{0,19226} - 2$

$1V = 3,24058$ $1V = 3,60443$
 $1W = 3,69673$ $1W = 3,87578$
 $\underline{6,93731}$ $\underline{2,98026}$
 $3,42029$ $3,42029$
 $\underline{3,51802}$ $\underline{3,88087}$
 $4,05992$
 $3288,2$ $3288,2$
 $7601,0$ $11429,5$
 $\underline{4312,3}$ $\underline{8190,8}$

$1,91855$
 $3,63471$
 $\underline{0,28384} - 2$
 19776
 $\underline{0,08603}$
 $1,91855$
 $3,91333$
 $\underline{0,00522} - 2$
 19776
 $\underline{0,80846}$

$\sigma = 0,01012$
 $s = 0,6419$

2/3
 $0,79755$ $0,79755$
 $1V = 3,81230$ $1W = 3,46648$
 $\underline{3,60985}$ $\underline{3,26403}$
 ~~62273~~ ~~62273~~
 $4072,3$ $1830,2$
 $V = \underline{4021,9}$ $\underline{4974,2}$
 $50,4$ $3132,5$

$1,70243$
 $3,49658$
 $\underline{0,20585} - 2$

$1V = 3,60443$ $1V = 3,81230$
 $1W = 3,46648$ $1W = 3,69673$
 $\underline{2,08091}$ $\underline{2,50903}$
 62273 62273
 $\underline{3,44818}$ $\underline{3,88630}$
 $2806,6$
 $7696,6$
 $\underline{4890,0}$

$1,70243$
 $3,68931$
 $\underline{0,01312} - 2$ $\sigma = 0,01031$
 20585
 $\underline{0,80827}$ $6,6416$

1/3
 $0,45391-1$ 85391
 $1V = 3,81230$ $1W = 3,46648$
 $\underline{3,26621}$ $\underline{2,92039}$
 $1845,9$ $832,5$
 $V = \underline{1740,1}$ $\underline{7512,3}$
 $105,8$ $6689,8$

$2,02449$
 $3,82477$
 $\underline{0,19922}$

$1V = 3,24058$ ~~$1V = 3,60443$~~
 $1W = 3,46648$ $1W =$
 $\underline{6,80806}$ $1V = 3,81230$
 62273 $1W = 3,87578$
 $\underline{3,08433}$ $\underline{2,68808}$
 $1214,3$ 62273
 $11623,8$ $\underline{4,06535}$
 $\underline{10409,5}$

$2,02449$
 01742
 $\underline{00808} - 2$ $\sigma = 0,01017$
 19972 $s = 0,6417$
 $\underline{80835}$

$\frac{9}{10000}$ $\frac{1}{1000}$ $\frac{3}{1000}$ $\frac{27}{10000}$ $\frac{9}{10000}$ $\frac{9}{100000}$ $\frac{27}{100000}$ $\frac{162}{10000}$

90 $\frac{27}{10000}$ $\frac{3}{1000}$
 63,12 0,0012 633×18
 $\frac{126}{756}$ 5064
 $\frac{6339,9}{13,3}$ 1139
 $\frac{6348,2}{99,4}$ $47,04 \times 2,11$
 $\frac{27,0}{6424,6}$ 4208
 $99,254$ 633×21
 $46 \times 3,6$ 1266
 $\frac{138}{276}$ 1229
 $165,1$ $9375,05 \times 21$
 18250
 196825

$\frac{2571,5}{3263,4}$
 $\frac{6339,9}{2,6}$
 $\frac{6342,5}{99,4}$
 $\frac{27,0}{6468,9}$

0,32428
 $\frac{1,62243}{0,0051}$
 $\frac{1,99822}{}$

9418,2

$\frac{9375,05}{19,69}$
 $\frac{9394,2}{23,5}$
 $\frac{9418,2}{6474,6}$

20 $19,99 \times 7$
 $\frac{0,0140}{20,00}$

$\frac{23 \times 21}{46}$
 $\frac{483}{}$

$\frac{1,62624}{1,09447}$
 $\frac{51}{2,72122}$

$\frac{2298,8}{4,8}$
 $\frac{2303,6}{2927,4}$

$\frac{9210,2}{19,1}$
 $\frac{9229,3}{23,1}$
 $\frac{9252,4}{1740,1}$
 $\frac{7512,3}{}$

$\frac{6474,6}{16,2}$
 $\frac{6490,8}{9418,2}$
 $\frac{2927,4}{}$

$\frac{590,5}{2303,6}$
 $\frac{2893,1}{27,0}$
 $\frac{2920,1}{81,3}$
 $\frac{2927,4}{}$

$\frac{2927,4}{2920,1}$
 $\frac{2893,1}{712}$

$\frac{91 \times 21}{182}$
 $\frac{1911}{}$

$\frac{2303,6}{27,0}$
 $\frac{2330,6}{590,5}$
 $\frac{1840,1}{}$

$\frac{2314,3}{1828,8}$
 $\frac{4143,1}{10,4}$
 $\frac{4153,5}{}$

$\frac{0,56110}{1,66074}$
 $\frac{51}{2,22235}$
 $\frac{166,9}{}$

$\frac{414 \times 21}{828}$
 $\frac{8694}{}$

$\frac{895 \times 21}{1290}$
 $\frac{18395}{}$

$\frac{4143,1}{166,9}$
 $\frac{3986,2}{9,9}$
 $\frac{3966,3}{27,0}$
 $\frac{3993,3}{}$

$\frac{4143,1 \times 21}{8,2}$
 $\frac{4151,8}{166,9}$
 $\frac{3984,9}{19,0}$
 $\frac{3994,9}{27,0}$
 $\frac{4021,9}{}$

$\frac{8954,9}{18,8}$
 $\frac{8983,8}{22,4}$
 $\frac{8996,1}{4021,9}$
 $\frac{4924,2}{}$

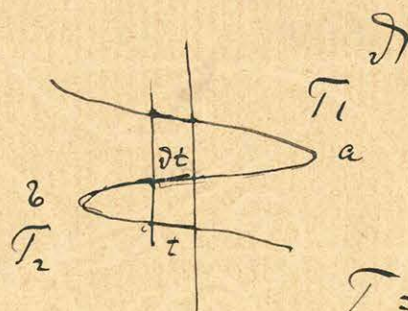
1/2

2/3

1/3

182,0 17m

	35,2	31,5	3,7
	46,3	42,7	3,6
	24,3	20,9	3,4
	53,0	49,9	3,1
	24,3	20,6	3,7
	49,0	46,6	2,4
	28,9	25,2	3,7
	44,1	41,9	2,2
	32,5	29,0	3,5
	39,5	38,8	0,7
	34,5	31,4	3,1
7,3°	36,1	36,9	
	36,1	34,8	
	35,2	35,4	
	36,2		
	35,0		
	25,8		



$$T = t + \frac{a-b}{1+d}$$

$$T_1 = \left(b + \frac{a-b}{1+d} \right) + \frac{d}{1+d} (T_1 - T_2)$$

$$T_2 = t_2 + \frac{d}{1+d} (T_2 - T_3)$$

$$T_1 = \frac{a+bd}{1+d} + \left(\frac{d}{1+d} \right) (T_2 - T_1) = \underline{t_1 + k(T_2 - T_1) = t_1 + k(t_2 - t_1)}$$

$$T_2 = \frac{b+cd}{1+d} + \frac{d}{1+d} (T_3 - T_2) = \underline{t_2 + k(T_3 - T_2)}$$

$$T_3 = \frac{c+ad}{1+d} + \frac{d}{1+d} (T_4 - T_3) = \underline{t_3 + k(T_4 - T_3)}$$

$$T_2 - T_1 = \frac{t_2 - t_1}{k} + \frac{d}{1+d} (T_3 - 2T_2 + T_1)$$

$$T_3 - T_2 = \frac{t_3 - t_2}{k} + \frac{d}{1+d} (T_4 - 2T_3 + T_2)$$

$$T_2 - T_1 = t_2 - t_1 + k(T_3 - 2T_2 - T_1)$$

$$T_3 - T_2 = t_3 - t_2 + k(T_4 - 2T_3 - T_2)$$

$$T_1 - T_2 = t_1 - t_2 + k(T_1 - 2T_2 + T_3)$$

$$k(t_1 - t_2) + k^2(T_1 - 2T_2 + T_3)$$

$$T_1 - 2T_2 + T_3 = t_1 - 2t_2 + t_3 + k$$

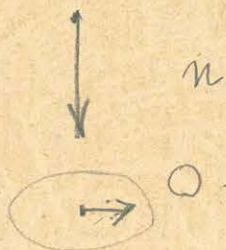
$$\underline{T_1 - 2T_2 + T_3 - T_4}$$

$$k(t_1 - t_2) + k^2(t_1 - 2t_2 + t_3) + k^3$$

$$\left| \begin{array}{c} k'k' \\ \hline \hline -1 \\ \hline k \end{array} \right|$$

$\sum u_n$

u_1



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$$e^{-d(T-T')}$$

$$e^{-a+dT}$$

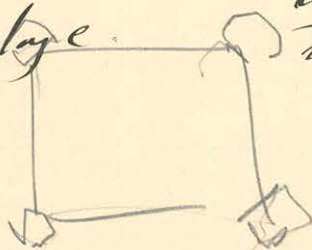
$$A = e^{-a+dT}$$

$$\log A = (-a+dT) \log e$$

$$\frac{\log A}{\log e} = -a + dT$$

$$\log h = (-a+dT') \log e$$

$$\frac{\log h}{\log e} = -a + dT'$$



$$\begin{array}{r} 165 \\ 272 \\ \hline 438 \end{array}$$

$$\frac{\log A}{\log e} - \frac{\log h}{\log e} = d(T-T')$$

$$T = 438$$

$$A = 0,164$$

$$\begin{array}{r} T' = 287 \\ \hline 151 \end{array}$$

$$h = 0,00195$$

$$T = 373$$

$$e^{-d(T-T')} = b$$

$$e^{-a+dT} = e^c$$

$\frac{\sigma}{s}$

Teny.	I, II	II, III	III, I
100	0,02846	0,02581	0,02918
105	0,3476	0,02831	0,03486
115	0,4291	0,04017	0,04312
125	0,5629	0,05195	0,05545
135	0,07150	0,07256	0,07172
145	0,09295	0,09433	0,09324
155	0,1211	0,12748	0,12751
165	0,1643	0,1666	0,1643

280 fira M = a kétjafi lunge

$$F = \frac{27M \sin 20^\circ}{r^3} \left[3k_1 + \frac{5}{2} \frac{7 \cos^2 \delta - 3}{r^2} k_2 + \frac{3}{8} \frac{231 \cos^4 \delta - 210 \cos^2 \delta + 35}{r^4} k_3 + \frac{3}{16} \frac{1935 \cos^6 \delta - 2753 \cos^4 \delta + 1077 \cos^2 \delta - 99}{r^6} k_4 \right]$$

$\delta = 30^\circ$

$$F = \frac{27M}{r^3} \sin 60^\circ \left[3k_1 + \frac{15}{r^2} 62500 k_2 + \frac{15}{r^4} 78906 k_3 - \frac{15}{r^6} 40362 k_4 \right]$$

$$F = \frac{27M}{r^3} \left[2,592075 k_1 + \frac{4,87140}{r^2} k_2 + \frac{2,41540}{r^4} k_3 - \frac{3,81364}{r^6} k_4 \right]$$

$\delta = 40^\circ$

$$F = \frac{27M}{r^3} \sin 80^\circ \left[3k_1 + \frac{1}{r^2} 2,76943 k_2 - \frac{1}{r^4} 3,25699 k_3 - \frac{1}{r^6} 4,49906 k_4 \right]$$

$$F = \frac{27M}{r^3} \left[2,954424 k_1 + \frac{2,72736}{r^2} k_2 - \frac{3,20751}{r^4} k_3 - \frac{4,43070}{r^6} k_4 \right]$$

$\delta = 45^\circ$

$$F = \frac{27M}{r^3} \left[3k_1 + \frac{1}{r^2} 1,25000 k_2 - \frac{1}{r^4} 4,59375 k_3 - \frac{1}{r^6} 6,28906 k_4 \right]$$

$\delta = 50^\circ$

$$F = \frac{27M}{r^3} \sin 100^\circ \left[3k_1 - \frac{1}{r^2} 0,26943 k_2 - \frac{1}{r^4} 4,62928 k_3 + \frac{1}{r^6} 2,34375 k_4 \right]$$

$$F = \frac{27M}{r^3} \left[2,954424 k_1 - \frac{0,26943}{r^2} k_2 - \frac{4,55893}{r^4} k_3 + \frac{2,30814}{r^6} k_4 \right]$$

$\delta = 60^\circ$

$$F = \frac{27M}{r^3} \sin 120^\circ \left[3k_1 - \frac{1}{r^2} 3,12500 k_2 - \frac{1}{r^4} 1,14844 k_3 + 5,32894 k_4 \right]$$

$$= \frac{27M}{r^3} \left[2,598075 k_1 - \frac{2,70633}{r^2} k_2 - \frac{0,99458}{r^4} k_3 + \frac{4,67200}{r^6} k_4 \right]$$

$\delta = 33^\circ 52' 42''$

$$F = \frac{27M}{r^3} \sin 67^\circ 45' 24'' \left[3k_1 + \frac{4,56220}{r^2} k_2 + \frac{0,00000}{r^4} k_3 - \frac{5,80031}{r^6} k_4 \right]$$

$$= \frac{27M}{r^3} \left[2,77675 k_1 + \frac{4,22270}{r^2} k_2 + \frac{0,00000}{r^4} k_3 - \frac{5,36868}{r^6} k_4 \right]$$

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$\delta = 62^\circ 2' 25''$

$$F = \frac{27M}{r^3} \sin 124^\circ 4' 50'' \left[3k_1 - \frac{3,65315}{r^2} k_2 + \frac{0,00000}{r^4} k_3 + \frac{5,80137}{r^6} k_4 \right]$$

$$= \frac{27M}{r^3} \left[2,48475 k_1 - \frac{3,02572}{r^2} k_2 + \frac{0,00000}{r^4} k_3 + \frac{4,80500}{r^6} k_4 \right]$$

$\delta = 49^\circ 6' 23''$

$$F = \frac{27M}{r^3} \sin 98^\circ 12' 20'' \left[3k_1 + \frac{0,00000}{r^2} k_2 - \frac{4,76860}{r^4} k_3 + \frac{1,72463}{r^6} k_4 \right]$$

$$= \frac{27M}{r^3} \left[2,96928 k_1 + \frac{0,00000}{r^2} k_2 - \frac{4,66682}{r^4} k_3 + \frac{1,70735}{r^6} k_4 \right]$$

September 28

este 10h.

35m	280.3
37	279.8
39	279.2
41	278.8
43	278.2
45	277.7
47	277.1
49	276.8
51	276.2
53	275.9
55	275.5
57	275.2
59	274.8
1	274.5
3	274.2
5	274.0
7	273.9
9	273.7
11	273.5
13	273.3
15	273.1
17	273.0
19	273.0
21	272.9
23	272.9
25	272.8
27	272.8
29	272.7
31	272.7
33	272.6
35	272.5
37	272.3
39	272.2
41	272.2
43	272.2
45	272.1
47	272.1
49	272.1
51	272.0
53	272.0
55	272.0
57	272.0
59	272.0
1	272.0
3	272.1
5	272.1

11h.

12h.

t=17.4

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KÖNYVTÁRA

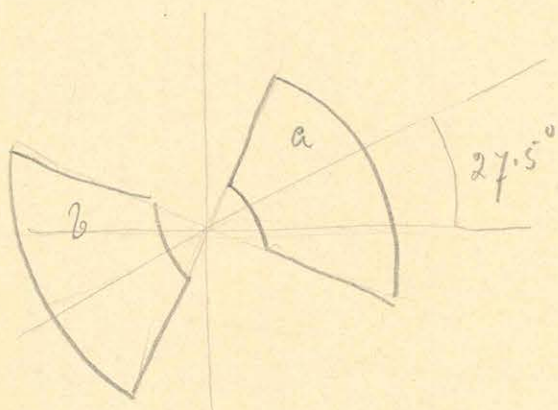
Sept. 29 1881

7h.	38m. 22	279.3
	40	279.8
	42	280.0
	44	280.1
	46	280.2

No. atom korakal elveni

9h.	42	332.0
	44	332.0
	46	330.8
	48	330.3
	50	330.6

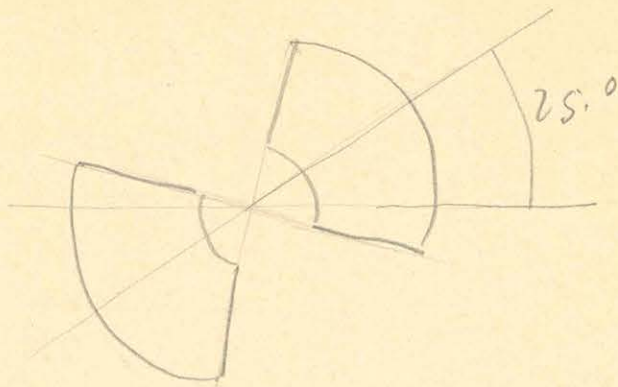
At I compensari sup ovalent nese a compensari supok alesia



10h.	50m.	332.0
	53m.	332.0
	56	332.0
12h.	57m.	236.1
	59	236.6
1h.	1	236.9
	3	237.2
	5	237.5
2h.	34	237.0
	36	237.0

Fenu disawarva

A I mánka olvatarol nevei e compensati surjok adatai:



este	gh.	33m.	259.0
		35	258.9
		37	258.9
		39	258.9

10h.	45m.	258.0
	47m.	258.0
	49m.	258.0

Sept 30.	reggel	7h.	45	257.2
			46	257.3
			47	257.3
			48	257.0

8h.	56m.	257.0
	58	257.1
	60	257.2

5 kly. up' vasnyft a (2) klyre keve . gh. 1m. knd

gh.	5m.	257.2
	10m.	256.4
	15	255.3
	20	253.9

25	252.0
30	250.1

35	248.2
40	246.2

10h.	45	244.3
	10m.	235.8
	15	234.1
	20	232.3
	25	231.0
	30	229.8
	35	228.7
	40	227.5
	45	226.4
	50	225.3

55	224.3
60	223.7

HAGYAR
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KÖNYVTÁRA

11 h.	10m.	222.5
	15	222.0
	20	221.3
	25	220.7
	30	220.0
	35	219.6
	40	218.9
	45	218.0
	50	217.2
	55	216.7
	60	215.8

12 h.	5	214.8
	10	214.1
	15	213.9
	20	213.8
	25	213.7
	30	213.0
	35	212.2
	40	211.9
	45	211.8
	50	211.8
	55	211.9
	60	212.0

2 h.	50	201.5
	55	200.9
	60	200.2

3 h.	10	198.2
	15	198.0
	16	198.1
	17	198.2

A Ribeirão sul, luares.

4 h.	10m.	210.8
	12m.	211.3
	14	212.0
	16	212.8

5 h.	7m.	226.2
	9m.	226.7
	11m.	227.0

7 h.	22m.	243.0
------	------	-------

10 h.	1m.	246.1
-------	-----	-------

11 h.	6m.	246.1
-------	-----	-------

07 de Setembro 1. regim.

12 h.	45m.	241.2
-------	------	-------

1891 szeptember 27 reggel

(11)

A compensatoros mérés adatai nyárca munkálat szept 26-án

Különböző mély mértékű

8h.	40m.	279.2
	42	279.2
	44	279.1
	46	279.1
	48	279.1
	50	279.1
	52	279.2
	54	279.2
	56	279.2
	58	279.2
	60	279.2

t = 17.4

A 4. számú kőzetek mélyre mértékű lapjával a mélyre mértékű felületük

A 4. lap felületje a mélyre mértékű 19.5-án

12h.	15m.	220.8
	17	220.8
	19	220.8
	21	220.8
	23	220.8
	25	220.7
	27	220.6
	29	220.6
	31	220.6

t = 17.6

Az ottani kőzetek adatai

3h.	43m.	281.2
	45	281.2
	47	281.2
	49	281.1
	51	281.1
	53	281.1
	55	281.1
	57	281.1
	59	281.1
	1	281.1

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KÖNYVTÁRA

t = 17.6

A 4. kőzetek mélyre mértékű lapjával a mélyre mértékű felületük adatai. A mélyre mértékű lap felületje a mélyre mértékű 29.9

7h.	12m.	254.1
	14	254.1
	16	254.1
	18	254.05
	20	254.05
	22	254.05
	24	254.05
	26	254.05
	28	254.05
	30	254.05

t = 17.6

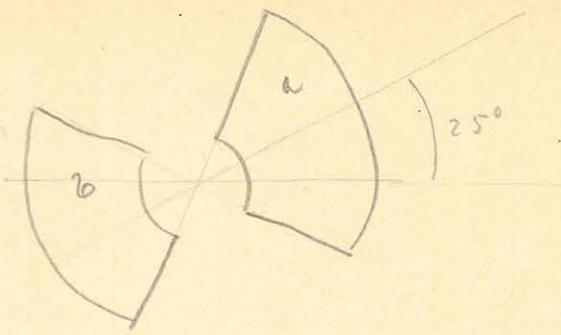
A. Peterito Korskial slove

10 h.	47 m.	279.8
	49	279.8
	51	279.8
	53	279.8
	55	279.9
	57	279.9
	59	280.0
	1	280.0

t=17.5

11 h.

September 28



a 4. kocskál = (1) lépe leve.
 elmozdított 11 h.

46	336.3
48	335.9
50	335.4
52	335.1
54	334.9
56	334.7
58	334.2
60	333.9
12 h. 2	334.0
4	335.2
6	336.2
8	337.0
10	337.2
12	337.3
14	337.5
15	338.0 <i>ütközés</i>

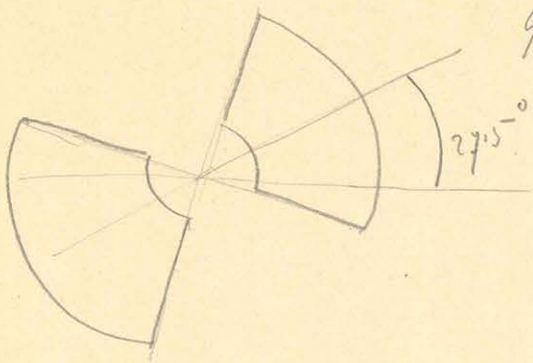
Az elmozdított levelek és fém 01 formát csavarvas 3 h. 0 m. kör

3 h. 10 m. 10 m.	193.1
16 m.	192.0
21	188.7
26	182.8
31	180.0
36	177.7
41	175.2
46	170.1
51	166.0
56	163.8
4 h. 51	160.2
6	157.1
11	155.8
16	152.0
21	150.9
35 m.	146.8 <i>fordul</i>
5 h. 25	285.5

MAGYAR
 TUDOMÁNYOS AKADÉMIA
 KÖNYVTÁRA

27. Keskiköy suljettu

este 8 h.



9 h.

10 h.

57	321.2
59	321.0
1	320.8
3	320.6
5	320.2
7	320.0
9	319.9
11	319.8
13	319.6
15	319.3
17	319.1
19	319.0
21	318.9
23	318.6
25	318.0
27	317.2
29	316.3
31	315.3
33	314.1
35	313.0
37	311.9
39	310.8
41	309.4
43	308.0
45	306.9
47	305.6
49	304.2
51	302.9
53	301.5
55	300.2
57	299.0
59	297.7
1 m	296.2
3	295.1
5	293.9
7	292.9
9	291.7
11	290.7
13	289.2
15	288.5
17	287.6
19	286.8
21	285.8
23	284.9
25	284.1
27	283.1
29	282.4
31	281.8
33	281.1

September 26

(11)

9 h.	30	280.05
	31	280.05
	32	280.1
	33	280.2
	34	280.25
	35	280.3
	36	280.3
	37	280.35
	38	280.4
	39	280.6
	40	280.7
	41	280.8
	42	280.85
	43	280.9
	44	281.0
	45	281.05
	46	281.1
	47	281.2
	48	281.35
	49	281.5
	50	281.7
	51	281.8
	52	281.8
	53	281.9
	54	282.0
	55	282.0
	56	282.1
	57	282.2
	58	282.3
	59	282.3
	60	282.5

10 h.
 A 4. számú olasz kocakötés minőségű lapjával annyihez fele adatára
 B. számú lap tárolásig a részlet 19.5 cm = (1) h/2

10 h.	5 m.	281.8	1.6
	7	280.2	2.1
	9	278.1	2.4
	11	275.7	1.7
	13	274.0	2.0
	15	272.0	1.8
	17	269.2	3.0
	19	266.2	2.4
	21	263.8	2.6
	23	261.2	2.6
	25	258.6	3.2
	27	255.4	2.9
	29	252.5	3.1
	31	249.4	2.6
	33	246.8	2.5
	35	244.3	3.1
	37	241.2	2.2
	39	239.0	2.2
	41	236.8	2.0
	43	234.8	

MAGYAR
 TUDOMÁNYOS AKADÉMIA
 KÖNYVTÁRA

10h.	43m.	234.8	2.5
	45	232.3	2.1
	47	230.2	2.1
	49	228.1	1.6
	51	226.5	1.7
	53	224.8	1.6
	55	223.2	1.3
	57	221.9	1.2
	59	220.6	1.4
11h.	1	219.2	1.0
	3	218.2	1.2
	5	217.0	0.8
	7	216.2	0.4
	9	215.8	0.7
	11	215.1	0.6
	13	214.5	0.6
	15	213.9	0.2
	17	213.7	0.2
	18	213.5	0.2
	19	213.3	0.1
	20	213.2	0.1
	21	213.1	
	22	213.1	
	23	213.0	
	24	213.0	
	25	213.0	
	26	213.0	
	27	213.0	
	28	213.0	
	29	213.0	
	30	213.0	
	31	213.0	
	32	213.0	
	33	213.0	
	34	213.0	
	35	213.0	
	36	213.05	
	37	213.05	
	38	213.05	
	39	213.1	
	40	213.15	
1h.	0m.	216.0	
	30m.	215.7	

for data's

$t = 17.8^\circ$

A Kateristö olamkorkat elveine

4h.	50m.	281.3
	52	281.4
	54	281.6
	56m.	281.7
	58	281.8
	60	281.9
	2	281.95

A4. Korkat mainostit loppuval a mittes jole otatose
 t=17.8 Anomott leptonojas a reicavitol 29.9 cm. = (2) hej

este	8h.	16m.	250.5
		18m.	250.5
		20	250.4
		22	250.4
		24	250.4
		26	250.4
		28	250.4
		30	250.4

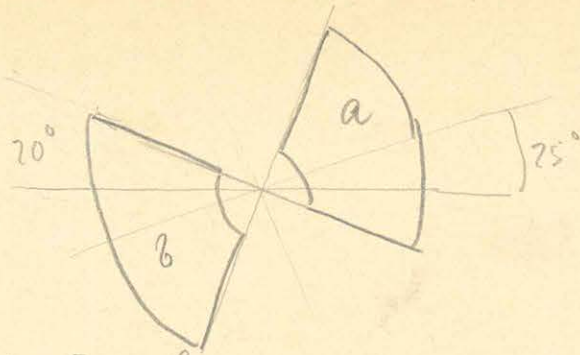
t=17.8

A Kateristö olam korkat elveine.

11h.	44m.	276.6
	46	276.6
	48	276.7
	50	276.7
	52	276.8
	54	276.8
	56	276.85
	58	276.9
	60	276.9

t=17.7

September 28.



Time	Location / Notes	Altitude	Barometric Reading
Utóéj	338.0 nál	10 h. 8m.	338.0 utóéj
		16m.	334.1
		18	334.1
		20	334.6
e 4) koraéj	a (2) kére leve	márvótt	leppával a minirefeli
	10 h.	24m.	335.6
		26	335.9
		28	336.1
		30	336.8
		32	337.5
		34	337.9
		36	338.1 utóéj
		38	334.7
		40	329.2
		42	325.9
		44	323.3
		46	322.1
		48	321.3
		50	321.1
		51	321.05
		52	321.0
		53	321.1
		54	321.1
		56	321.2
		58	321.0
		60	320.9
		2m	321.0
		4	321.3
		6	321.9
		8	322.3
		10	322.4
		12	323.2
		14	324.0
		16	325.2
		18	326.8
		20	328.8
		22	330.6
		24	331.9
		26	333.0
		28	333.8
		30	335.0
		32	335.8
		34	336.4
		36	336.9
		38	337.3
		40	338.0 utóéj

11 h.

MAGYAR TUDOMÁNYOS AKADÉMIA KÖNYVTÁRA

I erkös apricaeben

September 24.

(I)

Skálatavol 284 cm.

Mínor compensáló szók mérköl.
 $t = 19.3^{\circ}$

Vitértő szók mérköl.

debutan 1h. 55m. 253.2
Hosszúkat tárgyba hozva.

2h. 26m. 219.9 }
A Vitértő szókát elveve. } 52.2 J gyermek

2h. 55m. 267.1 } 0.345 253.7

3h. 23m. 249.1 }
24. 249.1 } 18.0

25m. 249.15 } 0.339 253.7
26 249.2

3h. 50m. 255.2 } 6.1

52m. 255.2

53 255.2

54 255.15

A 4. számú Kórköl számvolt lapjával minior felé olvastam.
A számvolt lap károlsaja a vitértő szók 19.5 cm.
 $t = 18.4^{\circ}$

4h. 25m. 234.8

26m. 234.65 } 6.45

27m. 234.7 } J gyermek

51m. 241.0 } 0.403 239.3

52m. 241.05

53m. 241.1

54 241.1

55 241.05

5h. 17m. 238.9 } 2.6

18 238.85

19m. 238.8

20 238.8

21 238.7

22 238.6 } 0.327 239.1

23 238.5

24 238.5

25 238.5

26 238.5 } 0.85 0.35 239.15

27 238.55

5h. 52m. 239.3

55 239.13

6h. 58 239.35 } 0.3 239.15

1 239.35

6h. 18 239.1

23 239.05

25 239.05

MAGYAR
TUDOMÁNYOS AKADÉMIA
KÖNYVTÁRA

1. Käteistö suht. etäälle

6h.	59m.	257.8	} 6.75	D	<u>Eyennus</u>
7h.	23m.	251.1			
	24m.	251.1			
	25	251.05			
	26	251.05			
	27	251.05	} 2.15		0.318
	28	251.1			
7h.	50m.	253.1			
	52	253.15	} 1.2		0.55
	54	253.2			
	56	253.15			

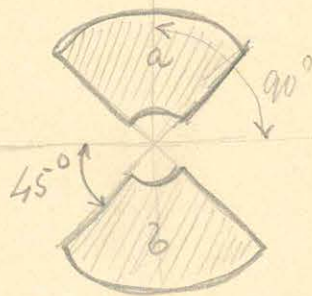
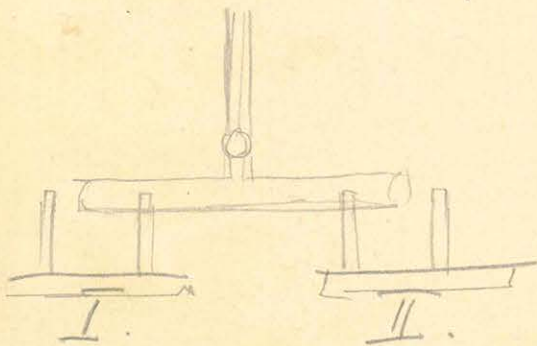
$t = 18.2$

8h. 22m. 252.0

1891 september 25

reggel 8h. 0 252.0

Compensatió sujokkal



Käteistö suht. nelküll

$t = 17.9^\circ$ alutám 1h. 50m. 251.1

Olom sujokkal terpsit le hova

2h.	14m.	228.9	} 3.23	D	<u>Eyennus</u>
Olom sujokkal etëve		261.2			
2h.	36m.	247.1			
3h.	58m.	253.1			
	20m.	250.7	} 2.4		0.400
	42m.				

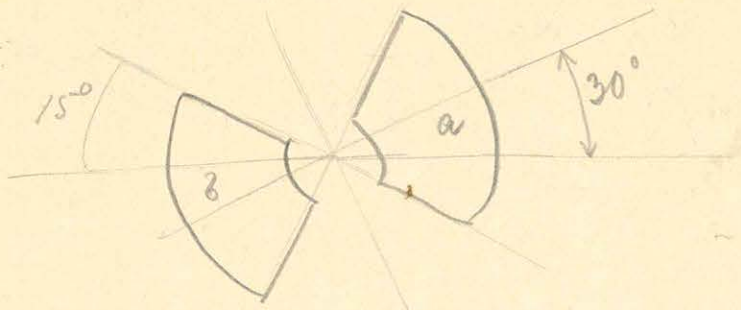
4. nenn' olom karkál nennwll lojyaval a miser jeli odalere

$t = 18.1^\circ$ A nennwll loj bovoler a visserer ca' lot 19.5 cm.

4h.	4m.	239.0	} 5.15	D	<u>Eyennus</u>
	26	244.15			
	48	249.9			
5h.	11m.	242.8	} 0.9		0.400

	A. P. ...	stamm	Korkal	elueve		Σ	Ergebnis
t=18°0	5h.	34m.	254.2	} 5.0		0.460	250.8
		56m.	249.2	} 2.3			250.7
	6h.	17m.	251.5	} 1.3		0.565	
t=18°0		38	250.2				

Septemb. 25 este



este	9h.	15	271.1	
	11h.	0	272.6	
szep 26	reggel	7h.	30m.	280.5
		8h.	46m.	279.7
			47	279.6
			48	279.4
			49	279.2
			50	279.1
			51	279.0
			52	279.0
			53	278.9
			54	278.85
			55	278.8
			56	278.7
			57	278.6
			58	278.5
			59	278.4
			60	278.4
	9h.	1m.	278.4	} forduló
		2m.	278.5	
		3m.	278.5	
		4	278.6	
		5	278.6	
		6	278.7	
		7	278.8	
		8m.	278.8	
		9m.	278.9	
		10m.	278.9	
		11	278.95	
		12	279.0	
		13	279.0	
		14	279.1	
		15	279.2	
		16	279.2	
		17	279.3	
		18	279.4	
		19	279.5	
		20	279.6	
		21	279.7	
		22	279.8	
		23	279.9	
		24	279.9	
		25	280.0	
		26	280.0	
		27	280.0	
		28	280.0	
		29	280.05	

MAGYAR
TUDOMÁNYOS AKADÉMIA
KÖNYVTÁRA

1892 májusi 23.
Lejyomás a busa alatt 17m. m.

Busa alatt víz

350	9h.	53m.	45,3
300	-	54m.	76,9
270	-	-	75,6
260	-	-	41,8
250	-	-	48,2
240	-	-	54,3
230	-	55m.	0,4
200	-	55m.	19,4
150	-	55m.	52,3

150	10h.	3m.	44,8
200	-	4m.	70,4
230	-	-	41,4
240	-	-	48,6
250	-	-	55,5
260	-	5m.	21,9
270	-	-	9,9
300	-	-	71,4
350	-	6m.	9,5

270	-	14m.	30,8
260	-	-	38,6
250	-	-	46,6
240	-	-	59,4
230	-	15m.	2,4

19m. 45. 171,3 ford

270	-	24m.	38,4
240	-	-	47,3
245	-	-	53,0
250	-	-	56,5

29m. 40. 445,0 ford

250	-	34m.	44,8
245	-	-	49,8
240	-	-	54,9

39 40. 66,6 ford

245	-	44m.	51,5
250	-	-	57,2

49m. 35 401,3 ford

MAGYAR
 TUDOMÁNYOS AKADÉMIA
 KÖNYVTÁRA

250 10h. 54m. 42,6
 245 49,0
 240 55,5
 59m. 45m. 105,0

240 11h. 4m. 47,5
 245 50,8
 250 58,1
 367,4

11h. 9m. 41m. 40,1
 250 48,3
 245 56,6
 240 135,0

240 24m. 41,8
 245 51,2
 250 0,6
 339,9

250 34m. 77,8
 245 78,1
 243 52,3
 240 58,9
 159,9

240 44m. 78,7
 243 45,9
 245 50,7
 319,3

245 54m. 47,8
 243 53,2
 240 1,4
 178,1
 59m. 40. 178,1

240 12h. 4m. 34,9
 243 43,0
 245 50,2
 12h. 9m. 40. 303,3

Lycopodium obscurum stall.
 17mm.

Amplitude

427,7
 378,4
 334,7
 296,3
 262,4
 222,4
 204,9
 180,0
 159,4
 144,2
 125,2

D
 0, 885
 885
 885
 886
 886
 886
 882
 879
 886
 886
 887

T

250 9m. 59,7		240 9m. 59,6
		59,7
		59,8
	245 9m. 59,6	
		59,7
		59,8
	9m. 59,8	9m. 59,8
	10m. 0,0	10m. 0,0
	10m. 0,2	10m. 0,2
	9m. 59,6	9m. 59,6
243 10m. 0,0	10m. 0,0	9m. 59,9
9m. 59,6	9m. 59,6	9m. 59,6

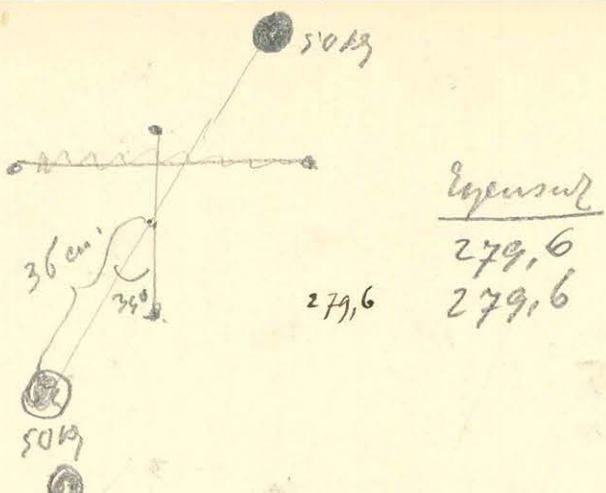
Exposure

244,2
 244,3
 244,2
 244,2
 244,1
 244,9
 244,4
 244,5
 244,4
 244,5

May 24

I. Arbeit

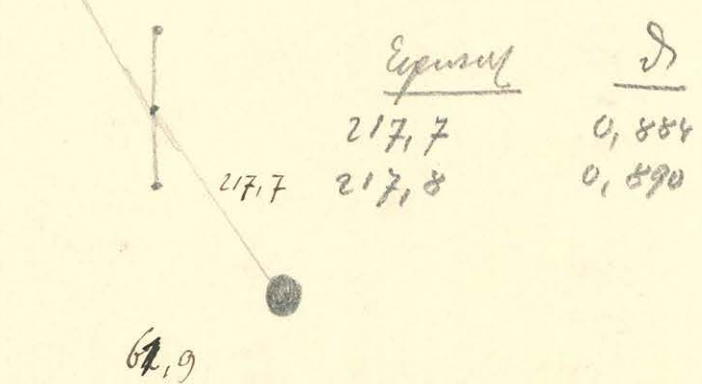
10h.	2m.	280,5
	12m.	278,7
	22m.	280,5



Expensur
279,6
279,6

II. Arbeit

10h.	47m.	03.	162,9
	57m.		266,1
11h.	7		174,9
	17		256,1



Expensur	D
217,7	0,884
217,8	0,890

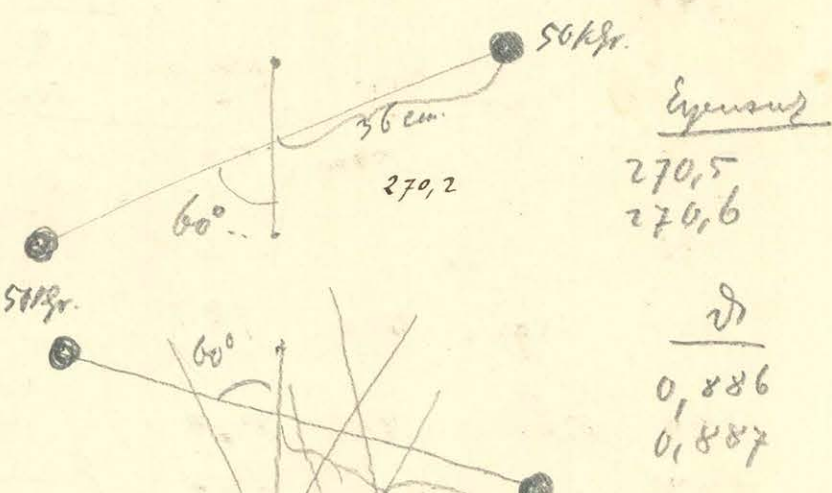
I. Arbeit

19m.	30.	250,8
29m.	30	305,3
39	30	257,1
49	25	300,0
59m.	25	262,1

Expensur	D
279,7	0,885
279,8	890
279,9	883

I. Arbeit

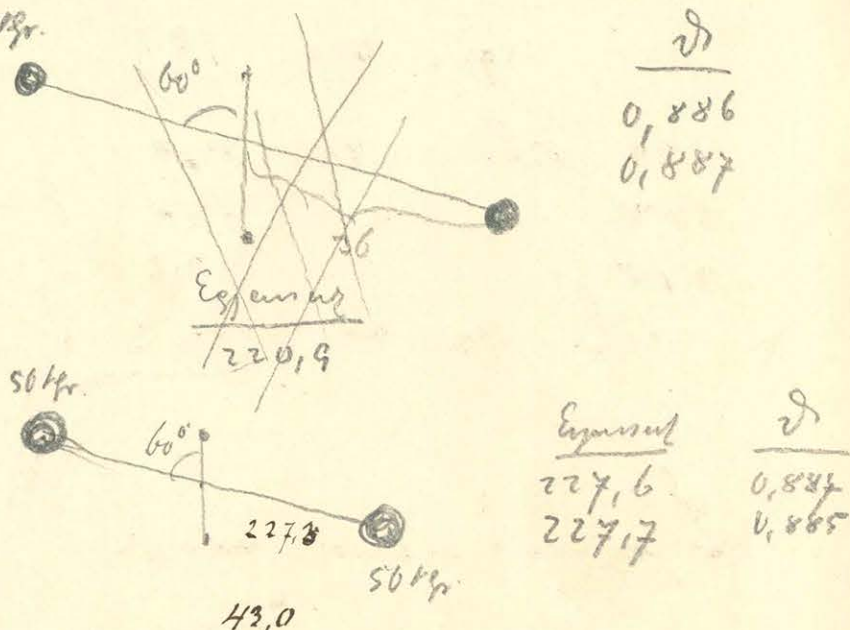
12h.	9m.	0	278,0
	18m.	50	258,9
	28	40	280,2
	38	40	261,4
	48	40	278,6



Expensur	D
270,5	0,886
270,6	0,887

II. Arbeit

1h.	0m.	203.	168,0
	10m.	10	267,7
	20	10	179,4
			257,3



Expensur	D
227,6	0,887
227,7	0,885

I. Arbeit

2h.	21m.	281,8
	31	260,9
	41	279,3

Expensur
270,2
270,7
270,7

Talaj

1892 május 27

Legnagyobb átmérő alatt 15 mm.

Barra alatti mére

180	10h.	21m.	46,6
200			59,4
210		22m.	6,2
220			12,8
230			19,3
240			25,7
250			32,2
270			45,3

Talaj



76cm.

270		31m.	29,6
250			54,2
240		32m.	1,7
230			9,0
220			16,4
210			27,8
200			31,3
180			46,3

200		41m.	41,4
220			50,0
220			58,2
270		42m.	6,4
220			19,7
270			23,2

46m. 50m. 443,7 *feld*

230		51m.	56,1
225		52m.	0,7
220			5,3

56m. 40m. 36,4 *pus*

220	11h.	1m.	44,2
225			49,5
230			54,8

11h. 6v. 40m. 397,3 *pus*

270		11m.	43,0
225			49,0
220			54,9

11h. 16m. 40 76,1 *feld*

HASZAR
TUDOMÁNYOS AKADÉMIA
KÖNYVTÁRA

220	11h.	21m.	70,6
225			77,1
230			44,0
	26m.	30.	<u>361,9</u> hr
230		31m.	33,0
227			37,6
225			40,8
220			48,3
	36m.	30.	<u>111,9</u> hr. 2
220		41m.	16,8
225			75,2
227			78,8
230			39,2
	46m.	30	<u>330,1</u>
220	46m.	51m.	16,9
227			72,8
225			76,3
	56m.	15m.	<u>136,0</u>
225	12h.	1m.	9,1
227			13,2
230			19,9
	6m.	50.	<u>309,0</u>
220		11m.	2,3
227			9,8
225			14,8
	16m.	02.	<u>155,9</u>
225		20m.	52,2
227			57,8
230		21m.	6,2
	25	50.	<u>292,1</u>
220		30m	48,2
228!		36	54,2
225		41m.	2,6
	46	40.	<u>176,1</u>

Expend

227,7	0,886
227,4	890
227,4	890
228,5 2	875
228,4 5	873
227,3	890
227,5	891
228,8	885
228,0	890
229,5	852

I

220	qm.	53,4		220	53,3
		53,7			53,8
		53,9			53,9
		53,9	225 qm.	53,8	53,8
		54,2		54,3	54,2
		55,3		55,4	55,4
		54,8		54,7	54,7
227		52,5		52,3	52,5
		52,1		52,5	52,3
		53,0		53,6	53,4
		52,6		52,4	52,5
		53,3		52,9	53,6

Thales' . Leyroun's 20mm.

200	1h. 41m.	15,5
210		23,0
220		30,3
230		37,4
240		44,7
250		52,2

46m. 30. 476,0 m

250	41m.	18,1
240		26,2
230		34,3
220		42,6
210		50,8
200		59,1

56m. 20. 5,0 m

200	2h. 1m.	16,4
210		26,2
220		35,4
230		44,8
240		54,1
250	2m.	3,4

2h. 6m. 30 421,9

230	11m.	40,2
225		45,4
220		50,8

16m. 40. 52,9

220	2 21m.	40,9
225		46,8
230		52,7

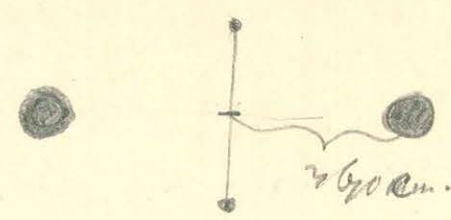
26 45. 479,8

230	31m.	46,0
225		52,8
220		59,3

36m. 50 90,2

220	51m.	45,6
225		53,2
230	57m.	0,6

46m. 50. 346,9



1,3
3,8
3,9
3,3
4,2
5,4
4,7
2,5
2,3
3,4
2,5
3,6

230	2h.	5m.	51,4
227			56,3
225			59,8
220		57m.	8,4
	56m.	50m.	<u>119,3</u>
220	3h.	1m.	49,8
225			59,2
227		2m.	3,1
220			9,0
	6m.	55m.	<u>320,8</u>
230		11m.	56,8
227		12m.	3,1
225			7,3
	16m.	55	<u>142,6</u>
225		22m.	5,2
227			10,2
220			17,5
	27	0	<u>300,7</u>
220		37m.	2,2
227			10,6
225			15,9
	37	5m.	<u>100,8</u>

Experiments

226,1	0,885
226,2	885
226,2	886
226,2	886
226,2	886
226,2	887
226,2	885
226,2	884
226,3	888
226,5	882
226,4	

I

220	10m	3,1		220	10m	3,3
		3,4				3,4
		3,5				3,4
		3,4	225	3,6		3,5
		3,3		3,4		3,3
		3,4		3,3		3,4
		3,4		3,2		3,4
227		3,6		3,5		3,2
		3,3		3,3		3,2
		4,2		3,9		3,9

1892 május 28

Búra alatti inga

Levegőtől a búra alatt: 17m.m.

I. átlag

270	gh.	38m.	40,7 - 10.
250			56,7 - 1
240			9,8 - 1
230		39m.	12,9 - 1
220			20,9 - 1
210			29,0 - 1
200			37,1 - 1
180			53,4 - 1

gh. 44m. 0. 1,9 fordul

200		48m.	49,3
210			58,4
220			7,3
230		49m.	16,4
240			25,6
250			34,7

54m. 0. 421,2 fordul

230		58m.	58,6
225		59m.	7,7
220			8,9

col. 3m. 55 49,0 fordul

220	col.	8m.	59,7
225		9m.	0,4
230			6,1

13m. 50 379,2 fordul

230		18m.	45,4
225			52,0
220			58,4

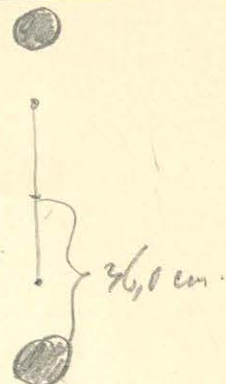
25m. 40. 86,4

220		28m.	40,7
223			55,0
225			48,0
230			55,2

37m. 35 346,4 fordul

230		38m.	50,9
225			59,1
223			42,2
220			47,2

43 30. 115,8



MAGYAR
TUDOMÁNYOS AKADÉMIA
KÖNYVTÁRA

220	10h.	48m.	25,9
223			21,6
225			25,4
230			44,7
	10h.	20m.	<u>320,0</u>
225		58m.	25,8
223			29,9
220			36,3
	11h.	3m.	<u>139,5</u>
220	11h.	8m.	10,9
223			17,9
225			22,7
	13m.	10m.	<u>299,1</u>
225		18m.	14,8
223			20,3
220			29,1
	13m.	0m.	<u>163,9</u>
220		27m.	55,7
227		28m.	51,9
225			12,4
	32m.	55m.	<u>277,1</u>
227		37m.	53,2
225		38m.	0,9
223			8,6
220			19,9
	42	50m.	<u>177,5</u>
220		47m.	37,3
223			50,1
225			58,6
	52	40m.	<u>266,1</u>
225		57m.	47,6
223			56,8
220		58m.	11,8
			<u>184,5</u>

Expenses

224,0	0,888
224,0	887
224,0	887
224,1	888
224,2	887
224,1	885
224,2	884
224,2	884
225,9	887
225,5	837
223,9	880
224,3	887
224,4	887

2I

220	19m.	48,2		220	19m.	48,1		
"		48,4		"		48,3		
"		47,9	225	19m.	48,0	"	47,9	
"		47,3	"		47,4	"	47,4	
"		47,1	"		47,2	"	47,3	
"		47,0	"		47,1	223	"	47,1
"		47,2	"		47,0	"	47,0	
"		48,7	"		48,1	"	48,2	
"		49,1	"		49,3	"	49,2	
"		47,6	"		48,0	"	48,1	
"		46,5	"		46,1	"	46,4	
"		46,4	"		46,4	"	46,1	

Таблица

250	12h.	58m.	1,4
240			9,8
230			18,2
220			26,6
210			35,2
200			43,7

1h. 3m. 15m. 71,0 град

210	1h.	8m.	16,3
220			26,0
230			35,4
240			45,1

13m. 20m. 412,9

230		18m.	23,2
225			28,5
220			33,9
215			39,1

23m. 25 53,8

220		28m.	32,0
225			38,0
230			44,1

33m. 25 371,7

230		38m.	27,2
225			39,1
220			41,0

43m. 30m. 89,7

220		48m.	77,2
225			95,0
230			92,8

53m. 35 340,5

230		58m.	70,8
225			74
222			75
220			78,0

2h. 3m. 40 117,6

78,1
8,3
7,9
7,4
7,3
7,1
7,0
8,2
9,2
8,1
6,4
6,1

220	2h.	8m.	41,9
222			45,6
225			51,5
220		9m.	1,4
	17m.	40s.	<u>315,5</u>
220		18m.	35,9
225			46,8
222			53,3
220			57,9
	23	45s.	<u>140,0</u>
220		28m.	49,6
222			59,5
225		29m.	2,3
	33	50s.	<u>295,7</u>
225		38m.	56,9
222			5,3
220			11,1
	43	55	<u>158,9</u>
220		58m.	54,4
222		59m.	8,5
225			10,4
	54m.	0	<u>280,0</u>
225		58m.	56,4
222		59m.	8,8
220			19,0
	3h.	4m.	<u>172,4</u>
220	3h.	8m.	58,6
222		9m.	6,7
225			18,5
	19m.	10s.	<u>268,3</u>
225		19m.	9,1
222			14,6
220			26,8
			<u>184,1</u>

Expenditure

222,4	0,885
222,4	885
222,3	887
222,4	889
222,5	889
222,4	888
222,5	887
222,5	887
222,5	879
222,9	885
223,1	889
223,0	891
223,1	878
223,5	

2T

220	20m.	6,7		220	20m.	6,7	
"	"	6,5		"	"	6,5	
"	"	6,2	225	20m.	6,3	"	6,2
"	"	6,1	"	6,2	"	6,3	
"	"	5,8	"	5,9	"	5,9	
"	"	7,0	"	6,9	"	7,0	
"	"	8,8	"	9,0	222	"	8,8
"	"	10,4	"	10,5	"	10,4	
"	"	9,2	"	9,1	"	9,2	
"	"	3,9	"	4,1	"	3,9	
"	"	3,5	"	3,5	"	3,7	
"	"	8,2	"	7,9	"	8,3	

MAGYAR
TUDOMÁNYOS AKADÉMIA
KÖNYVTÁRA

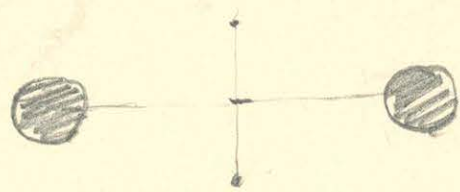
Lijepovis abura slati 20m.m.

1892. május 30 (álló 250,0)

lepusor és a burra alatt: 19 mm

II. ábra

230	10 ^h	10 ^m	28.0
240			46.0
250			54.2
<u>4620</u>	15		33
250	20		28.4
240			37.3
230			46.3
<u>32.3</u>	25		40
225	30		28.7
230			44.0
235			49.0
240			54.0
<u>411.1</u>	35		43
240	40		42.4
235			48.2
230			54.0
<u>76.6</u>	45		48
230	50		50.2
235			57.0
240	si		3.4
<u>371.2</u>	55		48
240	II	0	47.3
235			54.7
230		1	2.1
225			4.5
<u>110.5</u>	5		53
230	10		56.1
235	11		4.3
240			12.8
<u>341.85</u>	15		59
240	20		51.4
235	21		0.9
230			10.3
<u>140.1</u>	25 ^m		50.1



erősen rezeg.

MAGYAR
TUDOMÁNYOS AKADÉMIA
KÖNYVTÁRA

220 12h. 30m. 57,9
 233 31m. 4,3
 235 9,1
 240 19,9

36m. 0s. 315,55

240 40m. 51,4
 235 41m. 37
 233 8,5
 230 15,9

46m. 0s. 160,3

230 51m. 1,4
 233 9,8
 235 15,4
 240 29,5

56m. 5s. 297,8

235 12h. 1m. 8,2
 233 14,3
 230 23,9

12h. 6m. 5 176,4

230 11m. 4,7
 233 15,3
 235 22,5

16m. 10s. 284,0

Experiment

233,7
 233,5
 233,1
 232,9
 233,4
 234,1
 234,0
 233,2
 233,3
 233,3

2
 0, 882
 883
 879
 885
 884
 872
 870
 885
 886
 883

27

230	10m.	6,8	6,6
		7,0	7,1
		7,0	7,3
		7,0	6,7
		7,0	6,8
		5,2	5,5
		3,6	3,8
		4,6	4,4
		5,6	5,5
		5,8	5,8

1892 június 9

Duna alatti miza

Levegőmérés a Duna alatt: 17m. m.

Levegőmérés

Alto: 750

200	9h.	37m.	52,4
230		38m.	11,3
240			17,6
250			24,0
260			30,2
270			36,5
280			42,8
290			49,1
320		39m.	8,3

290		48m.	14,1
280			21,2
270			28,2
260			35,2
250			42,2
240			49,3
230			56,4

53m. 25. 6,2 ford

240		58m.	17,8
250			25,7
260			33,9
270			41,8
280			49,8

wh. 38m. 30. 488,9 l

270	10h.	8m.	31,1
265			35,5
260			40,1
250			49,2

10h. 18. 33. 62,0

250		18m.	28,1
260			38,4
265			43,5
270			48,6

23m. 35. 438,2

MAGYAR
TUDOMÁNYOS AKADÉMIA
KÖNYVTÁRA

270 10h. 28m. 77,0
 265 75,7
 260 44,4
 250 56,0

33m. 38m. 105,3

255 38m. 76,3
 260 42,8
 265 49,2
 270 55,8

43m. 40m. 400,5

270 48m. 45,7
 265 47,1
 260 50,3
 255 57,7

53m. 43m. 138,6

255 58m. 79,4
 260 47,7
 265 56,0
 270 41,3

11h. 3m. 370,9

265 11h. 8m. 46,4
 262 52,1
 260 55,8
 255 5,2

13 48m. 165,0

255 18m. 40,8
 260 51,4
 262 55,4
 265 2,1

23m. 50m. 347,0

265 28m. 49,8
 262 57,0
 260 1,6
 255 13,6

33 53 185,5

260 38m. 57,2
 262 39m. 2,7
 265 11,0

43 55 328,1

Eigenschaften

262,3
 261,9
 261,6
 261,8
 261,7
 261,7
 261,7
 261,6
 261,5
 261,2
 261,2
 261,3
 261,1
 260,9
 260,8
 260,8
 260,7

S
 0,884
 884
 885
 887
 887
 887
 886
 884
 887
 883
 884
 887
 891
 885
 887
 885
 887

2 T

750	20m.	4,2	760	20m.	4,3	770	20m.	4,2
	"	4,8		"	4,7		"	4,7
	"	4,5		"	4,4		"	4,5
265	"	4,4		"	4,3		"	4,4
265	"	5,1		"	5,1		"	5,1
	"	5,5		"	5,4		"	5,4
	"	5,2		"	5,2	255	"	5,2
	"	4,6		"	4,7		"	4,6
	"	4,8		"	4,7		"	4,7
	"	6,0		"	5,8	262	"	6,0
	"	5,7		"	5,6		"	5,6
	"	3,3		"	3,4		"	3,1
	"	1,2		"	1,2		"	1,3
	"	2,5		"	2,3		"	2,3
	"	4,1		"	4,0		"	4,1
	"	4,3		"	4,1		"	4,3
	"	4,5		"	4,4		"	4,7

265	48m.	51,8
262	49m.	9,6
260		6,9

53m. 55. 202,0

260	58m.	58,4
262		5,3
265		15,7

12h. 3m. 58 313,8

265	12h.	8m.	49,0
262		9m.	4,4
260			8,0

13m. 58. 214,1

260	19m.	2,1
262		10,8
265		24,2

24m. 0. 302,3

265	28m.	48,1
262	29m.	2,9
260		12,3

34m. 0. 224,0

260	39	6,0
262		17,2
265		34,3

44 0. 293,1

265	48	46,3
262	49	5,0
260		17,7

54 50. 231,8

MAGYAR
TUDOMÁNYOS AKADÉMIA
KÖNYVTÁRA

Lejzoni ábrák alatt 18mm.

1892 június 10.

Alm. 250

Levegőmérés a tundra alatt 19m. m.

Göyök mel. kült

	gh.	28m. 50m.	<u>5,1</u> fűtél
200	gh.	33m.	20,3
220			27,2
230			45,6
240			54,1
250		34m.	2,5
260			11,2
270			19,4
280			28,3
	38m.	52m.	<u>462,2</u>
250		44m.	2,0
245			6,8
240			14,3
	48m.	55	<u>57,9</u>
240		53m.	57,0
245		54	2,3
250			7,8
	58	58m.	<u>415,8</u>
250	10h.	4m.	5,8
245			11,9
240			17,9
	9m.	02.	<u>98,8</u>
240		13m.	59,1
245		14m.	6,0
248			9,9
250			12,6
	19m.	40.	<u>379,9</u>
250		24m.	8,7
248			11,7
245			16,3
240			24,3
	29m.	50.	<u>130,3</u>
240		34m.	0,2
245			8,7
248			13,9
250			17,4
	39	7	<u>351,2</u>

MAGYAR
TUDOMÁNYOS AKADÉMIA
KÖNYVTÁRA

250 10h. 44m. 11,1
 248 15,2
 245 21,0

49 8m. 155,1

245 54m. 12,3
 248 18,9
 250 23,2

59 10m. 329,6

250 11h. 4m. 14,4
 248 19,3
 245 26,5

9m. 15m. 174,7

245 14m. 15,9
 248 24,3
 250 30,0

19m. 15 311,9

250 24m. 17,6
 248 23,8
 245 33,5

29m. 15 190,2

245 34m. 20,6
 248 24,4
 250 28,7
298,2

Eigenschaften

247,7 0,884
 247,7 885
 247,7 886
 247,8 887
 247,6 888
 247,5 888
 247,3 889
 247,4 888
 247,5 886
 247,5 887
 247,4 888
 247,4

2T

240	20m.	4,6	245	20m.	4,4	250	20m.	4,60.
"	"	4,5	"	"	4,3	"	"	4,3
"	"	4,1	"	"	4,0	"	"	4,0
"	"	3,9	"	"	3,6	"	"	3,7
248	"	3,8	"	"	3,6	"	"	3,7
"	"	4,2	"	"	4,2	"	"	4,0
"	"	4,6	"	"	4,5	"	"	4,6
"	"	4,7	"	"	4,6	"	"	4,9
"	"	5,2	"	"	5,0	"	"	5,1
"	"	5,7	"	"	5,9	"	"	5,9

Lepidoptera abura alata: 19mm

1892 június 11.

degyzóna átlaga alatt: 18mm.

allo' 250,0

Gépjáró nélküli

180	19h.	14m.	36,6
200			53,2
210	10h.	15m.	1,2
220			9,3
230			17,3
235			21,3
240			25,3
250			33,3
260			41,5
	10h.	19m.	151.
			<u>458,0</u>
250		24m.	11,6
240			70,8
235			75,2
230			29,9
220			29,2
210			48,2
	29m.	17	<u>38,2</u>
230		34m.	19,9
235			25,1
240			30,1
	39	20.	<u>410,1</u>
		44m.	23,5
240			29,3
235			35,2
230			<u>80,8</u>
230			27,8
235			29,3
240			35,8
	59m.	25.	<u>370,1</u>
240	11h.	4m.	27,2
235			24,4
230			41,9
	9m.	28	<u>111,9</u>

erősen meleg!

MAGYAR
TUDOMÁNYOS AKADÉMIA
KÖNYVTÁRA

230 11h. 14m. 29,0
 233 77,9
 235 77,2
 237 49,4
 240 45,6

19m. 30m. 344,2

240 24m. 71,9
 237 77,6
 235 41,4
 233 45,0

29m. 32 138,9

230 34m. 70,7
 233 77,0
 235 41,2
 237 45,2
 240 51,8

39m. 35m. 320,8

237 44m. 79,8
 235 44,4
 233 49,2
 49m. 38m. 159,2

233 54m. 79,8
 235 45,1
 237 50,3
 59 38m. 302,2

237 12h. 4m. 41,9
 235 47,8
 233 53,8
 9m. 40m. 175,2

233 14m. 43,4
 235 59,4
 237 57,2

19m. 45 287,9

237 24m. 44,2
 235 52,0
 233 59,5

29m. 50 188,0

Eigenschaften δ
 235,4 0,886
 235,4 885
 235,5 886
 235,1 894
 235,1 889
 234,8 884
 235,2 886
 235,3 888
 235,2 885
 235,1 888
 234,9 887
 234,9 887
 234,9 887
 234,8 888
 234,7

T

230	20m.	3,9	235	20m.	3,9	240	20m.	3,8
	"	4,2		"	4,1	"	4,1	
	"	4,7		"	4,6	"	4,8	
	"	6,7		"	6,4	"	6,6	
	"	7,8		"	7,5	"	7,4	
	"	5,5		"	5,6	"	5,4	
230	"	3,6		"	3,5	237	"	3,6
	"	3,5		"	3,4	"	3,6	
	"	3,6		"	3,7	"	3,7	
	"	4,1		"	4,3	"	4,4	
	"	4,6		"	4,8	"	4,7	
	"	4,4		"	4,4	"	4,4	
		4,0			3,8	"	3,8	

233	12h.	34m.	40,4
235			55,1
237		25m.	3,9
			<u>276,2</u>

237	12h.	49m.	54,8
235			54,8
233		45	4,6
	49m.	55m.	<u>197,9</u>

Lepizomni a bura alati: 20m.

1892 julius 27
Bura alatti nye

Linyphia a bura alatti: 20 m m.
 alatti: 250,0

este. 9h.	50m.	200.	<u>459,9</u> forint
300	9h.	55m.	15,7
290			26,4
280			37,0
270			47,5
260			58,1
250		56m.	8,9
240			19,6

	10h.	0m.	450.	<u>94,9</u> forint
260	10h.	5m.		46,4
265				52,4
270				58,3
280				10,4

	10m.	450.	<u>417,3</u> forint
270		15m.	50,3
265			57,2
260		16m.	4,0

	20m.	500.	<u>132,0</u> forint
260		25m.	49,1
265			56,6
270		26m.	4,1

	30m.	500.	<u>384,3</u> forint
270		35m.	53,1
267			58,2
265		36m.	1,6
260			10,1

	40m.	550.	<u>161,0</u> forint
260		45m.	50,2
265			59,9
267		46m.	3,4
270			9,5

	50m.	550.	<u>358,6</u> forint
270		55m.	54,4
267			1,0
265			5,4
260		56m.	16,4

	11h.	1m.	0m.	<u>183,8</u> forint
265	11h.	6m.		3,1
267				8,2
270				15,5

	11h.	0m.	<u>338,1</u> forint
--	------	-----	---------------------

NYELV
 TUDOMÁNYI AKADÉMIA
 KÖNYVTÁRA

270 11h. 15m. 55,1
 267 16m. 3,5
 265 8,9

21m. 0s. 201,8 h

265 26m. 6,6
 267 13,0
 270 22,4

31m. 5s. 322,5

270 37m. 56,1
 267 36m. 7,0
 265 14,1

41m. 5s. 215,6

265 46m. 10,9
 266 14,8
 267 19,0
 270 31,2

51m. 5s. 310,1

270 55m. 57,0
 267 56m. 10,7
 266 15,5
 265 20,1

12h. 1m. 5s. 226,7

265 6m. 22,2
 266 27,6
 267 32,8
 270 49,3

11h. 10s. 299,05

267 16m. 20,5
 266 26,4
 265 32,8

21 20s. 236,1

Eigenschaften

d

266,1 0,883
 265,9 885
 265,9 884
 265,8 885
 265,8 885
 265,8 884
 265,9 883
 265,8 883
 265,7 886
 265,8 886
 265,8 884
 265,8 883
 265,8 882
 265,4 870
 265,4

2 T

260	20m.	4,4		270	20m.	4,2	
"	"	4,3	265	20m.	4,3	"	4,4
"	"	3,8	"	"	3,9	"	4,0
"	"	3,5	"	"	3,5	"	3,5
267	20m.	3,7	"	"	3,5	"	3,5
"	"	3,7	"	"	3,3	"	3,5
"	"	3,6	"	"	3,5	"	3,6
"	"	4,2	"	"	4,3	"	4,1
"	"	4,7	"	"	4,8	"	4,7
"	"	4,9	"	"	5,1	"	5,1
"	"	8,4	"	"	8,5	"	9,0
"	"	12,0	"	"	12,0	"	

Leipzig am 22. 11. 1885

1892 július 38.

Búra alatti úrga.

Legnagyobb a búra alatt 21 m m.
 allos 250,0

	9h. 43m.	250.	<u>449,1</u>
290	9h.	48m.	1,3
280			12,3
270			73,2
265			78,9
260			79,2
250			45,3

	53m.	250.	<u>99,9</u>
260		58m.	76,9
265			73,1
270			39,2

	10h. 3m.	250.	<u>409,5</u>
270	10h.	8m.	75,6
265			32,7
260			39,7

	13m.	250.	<u>135,2</u>
260		18m.	29,2
265			37,2
270			45,1

	23	300.	<u>378,1</u>
270		28m.	27,2
265			26,1
263			39,7
260			47,0

	33	300.	<u>163,0</u>
260		38m.	31,4
263			27,5
265			41,4
270			51,7

	43	300.	<u>353,0</u>
270		48m.	27,7
265			29,2
263			43,6
260			50,4

	53	350.	<u>185,1</u>
260		58m.	32,8
263			49,8
265			45,8

	11h.	3m.	35
			<u>333,7</u>

MAGYAR
 TUDOMÁNYOS AKADÉMIA
 KÖNYVTÁRA

265 11h. 8m. 44,0
 263 45,8
 260 54,6
 13m. 35. 202,1

260 18m. 31,9
 263 41,8
 264 45,1
 265 48,2
 23 35 318,6

265 28 42,8
 264 46,5
 263 50,3
 260 1,6
 33 35 215,4

260 38 33,6
 263 46,2
 264 50,4
 265 54,5
 43 40. 306,7

265 48 45,9
 264 50,8
 263 55,7
 53 40 225,7

263 58 51,4
 264 56,6
 265 59 2,0
 12h. 3m. 40. 296,9

erősebb rezeg! 265 12h. 8m. 38,3
 264 44,4
 263 50,5

erősebb rezeg! 13m. 40. 234,1
 263 18 44,1
 264 50,6
 265 58,0

23m. 40. 290,0
 265 28 42,0
 264 48,8
 263 57,4

33 40. 240,6
 263 38m 45,8
 264 55,0
 265 3,6

12h. 43 40 284,1

Egyszerű

264,0 0,887
 264,1 886
 264,1 886
 264,0 886
 263,9 883
 263,8 884
 263,9 885
 263,9 886
 263,9 885
 263,9 886
 263,9 885
 263,9 886
 263,9 885
 263,8 887
 263,6 879
 263,5 882
 263,7 890
 263,8 884
 263,7 880

2 T

260	20m	4,0	265	20m	3,9	270	20m	4,6
"	"	3,7	"	"	3,8	"	"	3,9
"	"	3,8	"	"	3,8	"	"	3,9
"	"	3,7	"	"	3,7	"	"	3,7
"	"	3,5	"	"	3,7	263	20m	3,6
"	"	2,7	"	"	2,7	"	"	2,8
"	"	1,8	"	"	1,6	"	"	1,6
"	"	2,8	"	"	2,6	"	"	2,6
"	"	4,5	"	"	4,4	"	"	4,5
264	20m	4,8	"	"	4,8	"	"	4,9
"	"	5,2	"	"	5,2	"	"	5,3
"	"	0,3	"	"	0,4	"	"	0,3
"	19m	53,8	"	19m	54,1	"	19m	53,9
"	"	59,4	"	"	59,6	"	"	59,4
"	20m	4,9	"	20m	4,6	"	20m	4,5

Levegővíz a bura alatt: 22m.m.

1892 július 29

Búra alatti miza nagy levegőben.

280	9h.	36m.	30,7
270			40,8
265			45,9
260			51,0
250		37m.	1,2
	41m.	40m.	<u>85,4</u> <i>fordul</i>

280		46m.	38,2
260		46m.	49,8
265			55,4
270		47	1,3
280			13,1
	51m.	45m.	<u>419,1</u>

270		56	96,4	
265			93,1	
260			99,4	
250		57	12,7	
	10h.	1m.	50m.	<u>124,2</u> <i>fordul</i>

260	10h.	6m.	56,2
262			59,0
265		7m.	3,3
270			11,1
	11m.	50m.	<u>384,0</u>
270		16m.	50,4
265			59,0
262		17m.	3,8
260			7,3
	21m.	55m.	<u>155,1</u>

260		27m.	2,4
262			6,2
265			12,1
270			21,4
	31m.	55	<u>356,9</u>

265		37m.	4,3
262			10,6
260			15,1
	42	0	<u>178,9</u>

260		47m.	9,0
262			13,8
265			21,2
	52	52	<u>335,1</u>

MAGYAR
TUDOMÁNYOS AKADÉMIA
KÖNYVTÁRA

265 20h. 57m 9,3
 262 17,8
 260 23,1
 11h. 2m 5s. 198,3

260 11h. 7m 10,3
 262 16,6
 263 19,8
 265 26,2
 12m. 15s. 319,6

265 17m 11,4
 263 18,8
 262 22,5
 260 29,8
 22 20s. 211,9

260 27m 14,4
 262 22,3
 263 26,3
 265 34,4
 32 20s. 306,8

265 37 15,2
 263 24,4
 262 28,4
 260 38,0
 42 25s. 223,1

260 47 17,3
 262 27,4
 263 32,8
 52 25 29,6,9

263 57 28,6
 262 34,2
 260 46,3
 12h. 2m 30s. 231,9

260 7m 29,8
 262 34,6
 263 42,0
 12m 30 287,8

263 12h 17m 24,8
 262 42,8
 260 51,0 ?
 22m. 35s. 240,0

262 27m 38,7
 263 44,8
 32 35 282,1

Experiment	δ
262,5	0,884
262,3	881
262,3	881
262,3	882
262,4	882
262,3	878
262,1	876
262,2	887
262,6	888
262,6	881
262,3	882
262,3	882
262,3	880
262,4	880
262,0	855
262,0	884
262,4	

27

260	20m.	7,5	265	20m.	7,5	270	20m.	7,6
"	"	7,1	"	7,0	"	"	7,1	
"	"	7,1	"	7,2	"	"	7,0	
"	"	7,0	"	7,2	262	20m.	7,0	
"	"	7,2	"	7,1	"	"	7,2	
"	"	7,3	"	7,2	"	"	7,4	
"	"	4,9	"	5,0	"	"	5,1	
"	"	3,8	"	3,7	"	"	3,7	
"	"	5,5	"	5,0	"	"	5,2	
"	"	6,0	263	20m.	6,1	"	5,8	
"	"	5,7	"	6,0	"	"	5,5	
"	"	5,4	"	5,5	"	"	5,4	
"	"	6,1	"	6,5	"	"	6,5	
"	"		"	7,8	"	"	7,9	
"	"		"	6,0	"	"	6,5	

1892 július 30

Bura alatti nagy 9h. 151m 45,6

270 81,5

265 57,5

260 42m. 3,5

255 9,6

250 46m. 45. 111,2

255 561 42,6

260 49,6

265 56,5

270 592 3,2

270 10,1

270 56m. 45. 393,6

265 wh 1m. 47,4

260 55,0

255 2,8

255 wh 6m. 50 10,6

255 144,8

260 11 52,2

265 1,0

265 9,6

265 16m. 55 263,9

262 21m. 57,8

260 22m. 7,8

255 7,8

255 17,8

255 26m. 55. 170,7

260 31m. 54,2

262 32m. 5,4

265 10,0

265 16,8

260 37m. 0. 341,1

255 42. 14,4

255 27,4

255 47 5. 191,2

260 51 55,2

261 52m. 9,8

262 12,8

262 15,5

262 57m. 5 322,8

261 11h. 2m. 12,3

260 15,6

255 19,0

255 35,7

255 7m. 10. 207,1

MAGYAR
TUDOMÁNYOS AKADÉMIA
KÖNYVTÁRA

255 11h. 11m. 54,4
 260 12m. 13,1
 261 17,0
 262 70,6

17 10m. 308,8

262 22 16,0
 261 70,4
 260 24,7

27 10m. 219,1

260 32m. 16,8
 261 21,4
 262 76,3

37 10m. 297,9

262 42 16,2
 261 72,0
 260 27,5

47 15 227,9

260 52 19,3
 261 75,3
 262 31,6

57 15 290,1

262 12h. 2m. 18,8
 261 75,4
 260 32,3

7m. 20m. 233,6

260 12m. 21,0
 261 28,4
 262 36,0

17 20 285,2

Expenses

261,3 0,881
 261,3 881
 261,2 882
 261,2 882
 261,3 880
 261,3 878
 261,3 879
 261,3 879
 261,2 882
 261,0 878
 261,0 888
 260,8 888
 260,8 908
 260,5 913
 260,6

27

260	20m.	4,9	265	20m.	4,9	255	20m.	5,0
"	"	4,7	"	"	4,7	"	"	4,7
"	"	4,7	"	"	4,8	"	"	4,9
"	"	5,4	"	"		"	"	5,7
"	"	5,6	"	"		"	"	5,6
"	"	4,5	"	"		"	"	4,4
"	"	4,0	"	"		"	"	4,0
"	"	4,5	261	20m.	4,5	262	20m.	4,4
"	"	4,8	"	"	4,6	"	"	4,6
"	"	3,3	"	"	3,2	"	"	3,1
"	"	2,7	"	"	2,7	"	"	2,6
"	"	3,6	"	"	3,7	"	"	4,0
"	"	3,3	"	"	3,3	"	"	3,5

$$\gamma = 60^\circ 16' 59''$$

f_{100}

$$f_{100} \gamma = 0,935020 - 1$$

$$\begin{array}{r} 477121 \\ \hline 0,412141 \end{array} \quad 2,58310$$

$$f_{100} \gamma = 0,695232 - 1$$

$$f_{100} \gamma = 0,390464 - 1$$

$$\begin{array}{r} 845098 \\ \hline 0,235562 \\ 1,72013 \\ 3 \\ \hline 1,27987 \end{array}$$

$$a_2 = -3,19968$$

$$f_{a_2} = 0,505106$$

$$\begin{array}{r} 935020 - 1 \\ \hline 0,440126 \end{array}$$

$$a_{2sm} \gamma = -2,75563$$

$$f_{100} \gamma = 0,390464 - 1$$

$$\begin{array}{r} 2,322219 \\ \hline 1,712683 \\ 51,6039 \\ \hline 51,6039 \end{array}$$

$$f_{100} \gamma = 0,780928 - 2$$

$$\begin{array}{r} 2,363612 \\ \hline 1,144540 \\ 13,9489 \\ 35 \\ \hline 48,9489 \\ - 51,6039 \\ \hline 2,655023 \\ 2,965028 = 0,99563 = a_3 \end{array}$$

$$f_{a_3} = 0,998098 - 1$$

$$\begin{array}{r} 935020 - 1 \\ \hline 0,933118 - 1 \end{array}$$

$$a_{3sm} \gamma = -0,857221$$

$$f_{100} \gamma = 0,390464 - 1$$

$$\begin{array}{r} 3,032216 \\ \hline 2,422680 \end{array}$$

$$f_{100} \gamma = 0,780928 - 2$$

$$\begin{array}{r} 3,439806 \\ \hline 2,220734 \end{array}$$

$$f_{100} \gamma = 0,171392 - 2$$

$$\begin{array}{r} 3,286681 \\ \hline 1,458073 \end{array}$$

$$264,655$$

$$166,239$$

$$\begin{array}{r} 287, \\ \hline 28,713 \end{array}$$

$$+ 293,368$$

$$- 265,239$$

$$+ 28,129 \times 3$$

$$84,387 : 16 = 5,27429 = a_4$$

$$\begin{array}{r} 80 \\ \hline 43 \end{array}$$

$$32$$

$$118$$

$$112$$

$$\begin{array}{r} 67 \\ \hline 64 \end{array}$$

$$30$$

$$16$$

$$140$$

$$f_{a_4} = 0,722156$$

$$\begin{array}{r} 0,935020 \\ \hline 0,657176 \end{array}$$

$$4,54125$$

MAGYAR
TUDOMÁNYOS AKADEMIA
KÖNYVTÁRA

$$F = \frac{2M}{r^3} \left[2,58310 K_1 - \frac{2,75563}{r^2} K_2 - \frac{0,857221}{r^4} K_3 + \frac{4,54125}{r^6} K_4 \right]$$

$$\frac{31}{3846} = 27' 43''$$

$$34^{\circ} 8' 41''$$

$$D = \frac{33' 40' 58''}{}$$

$$2D = 67^{\circ} 21' 56''$$

$$\sin 2D = 0,965191-1$$

$$\frac{477121}{0,442272}$$

$$\underline{\underline{2,76868}}$$

$$\sin D = 0,920187-1$$

$$\frac{845098}{0,265285}$$

$$5,82485$$

$$\cos D = 0,840374-1$$

$$\frac{845098}{0,685472}$$

$$4,84700$$

$$\frac{3}{1,84700}$$

$$a_2 = 4,61750$$

$$a_1 = 0,664407$$

$$\frac{965191-1}{0,629598}$$

$$\underline{\underline{a_1 \sin D = 4,26185}}$$

$$34^{\circ} 8' 41'' \dots 0,16309$$

$$33^{\circ} 52' 42'' \dots 0,00000$$

$$\frac{16'}{0,16309}$$

$$27' 43'' \dots 0,16309 \frac{277}{16} = 0,28235$$

$$\frac{16309}{+ 0,11926}$$

$$\underline{\underline{a_3 \sin D = + 0,11926}}$$

$$\frac{08019}{5,41500}$$

$$\underline{\underline{5,33481}}$$

$$\underline{\underline{a_4 \sin D = - 5,33481}}$$

$$\left(\frac{T}{2k_1}\right) \varepsilon_1 = \frac{2M}{r^3} 2,76868 + \frac{2M}{r^5} 4,26185 \frac{k_2}{k_1} + 0,11926 \frac{2M}{r^7} \frac{k_3}{k_1} - 5,33481 \frac{2M}{r^9} \frac{k_4}{k_1}$$

$$\left(\frac{T}{2k_1}\right) \varepsilon_2 = \frac{2M}{r^3} 2,60000 - 2,70000 \frac{2M}{r^5} \frac{k_2}{k_1} - 1,09312 \frac{2M}{r^7} \frac{k_3}{k_1} + 4,66277 \frac{2M}{r^9} \frac{k_4}{k_1}$$

$$\frac{k_3}{k_1} = 4,291100$$

$$r^4 = \frac{6,222796}{0,068304-2}$$

$$50,11926 = 0,076495-1 \quad 340 = 0,038668-1$$

$$\frac{0,144799-3}{+ 0,0013957 \dots 33^{\circ}} \quad \frac{0,106972-3}{- 0,0012793 \dots 59^{\circ}}$$

$$\frac{k_4}{k_1 r^6} = 0,106283-3$$

$$\frac{5,33481}{0,833402-3} = 0,727119$$

$$\underline{\underline{- 0,006814}}$$

$$\frac{k_4}{k_1 r^6} = 0,106283-3$$

$$4,66277 = 0,668644$$

$$\underline{\underline{0,274927-3 + 0,005956}}$$

$$\frac{T}{2k_1} \varepsilon_1 \frac{r^3}{2M} = 2,76868 + \frac{4,26185}{r^2} \frac{k_2}{k_1} + 0,00140 - 0,00681$$

$$\frac{- 0,0541}{2,76868}$$

$$\underline{\underline{2,76327}}$$

$$+ 468$$

$$\frac{T}{2k_1} \varepsilon_2 \frac{r^3}{2M} = 2,60000 - \frac{2,70000}{r^2} \frac{k_2}{k_1} - 0,00128 + 0,00596$$

$$0,00000021336 \frac{1}{r} - 4,26185 \frac{k_2}{r^2 k_1} = 2,76327$$

$$0,00000014787 \frac{1}{r} + 2,70000 \frac{k_2}{r^2 k_1} = 2,60468$$

22,9 21,45

$921,45 = 1,331427$
 $\quad 3,585009$
 $\quad \underline{0,746418 - 3}$
 $0,0055772 = 19' 10''$
 $\quad 552760' 16' 59''$
 $\quad \underline{000050}$
 $\quad 59^{\circ} 57' 49''$

~~$D = 60^{\circ} 30'$~~

$D = 59^{\circ} 57' 49''$
 $2D = 119^{\circ} 55' 38'' = 90^{\circ} + 29^{\circ} 55' 38''$

$9 \sin 2D = 0,937849 - 1$ $\frac{182121}{2638459}$
 $\quad 477121$
 $\quad \underline{0,414970}$
 $\quad \underline{2,60000}$

$9 \cos D = 0,699447 - 1$
 $1 \cos D = 0,298894 - 1$
 $\quad 845098$
 $\quad \underline{0,243992}$ $1,75385$
 $\quad 3,$
 $\quad \underline{1,24615}$

$1 - a_2 = 0,095571$
 $\quad 602060$
 $\quad \underline{0493511}$
 $\quad 0,937849 - 1$
 $\quad \underline{0,431360} - 2,70000 = a_2 \sin D$

$60^{\circ} 16' 59'' \dots - 0,85727$
 $60^{\circ} \dots - 1,14844$
 $17' \dots \quad 0,29117$
 $12'' 11'' \dots \quad 0,29117 \quad \frac{12,2}{17}$
 $9, 1,14844$
 $\quad 20896$
 $\quad \underline{1,35740}$

$29117 \times 1,22 =$
 58234
 58234
 $\underline{35522,74} : 17 = 20896$
 34
 152
 136
 $\underline{162}$
 153
 97

~~$a_3 \sin D = -1,35740$~~

$60 16' 59'' \dots 4,54125$
 $60^{\circ} \dots 4,61200$
 $17' \dots 0,07075$
 $12'' 11'' \dots 0,07075 \quad \frac{12,2}{17}$
 $4,61200$
 $\quad 08077$
 $\quad \underline{4,66277}$

$0,07075 \times 12,2$
 84150
 84150
 $\underline{0863150} : 17 = 50774$
 85
 131
 119
 $\underline{125}$
 119
 60

$a_4 \sin D = 4,66277$

$60 17' \dots - 0,85727$
 $60^{\circ} \dots - 0,99458$
 $\quad \underline{0,13731} \times \frac{12,2}{17}$
 $0,99458$
 $\quad 09854$
 $\quad \underline{1,09312}$

$13731 \times 12,2$
 27462
 27462
 $\underline{167518,2} : 17 = 09854$
 153
 145
 $\underline{136}$
 91
 85
 68

$a_3 \sin D = -1,093121$

$D = 59^{\circ} 57' 49''$

$$\begin{array}{r} 31^2 \\ \hline 384,6 \end{array} \quad \begin{array}{r} 31 = 1,491362 \\ 5384,6 = 3,585009 \\ \hline 0,906353-3 \end{array}$$

$$\begin{array}{r} 0,0080603 = 27' 43'' \\ 7854 \quad 34^{\circ} 8' 41'' \\ \hline 000206 \quad 34^{\circ} 36' 24'' \end{array}$$

$$\underline{D = 34^{\circ} 36' 24''} \quad 2D = 69^{\circ} 12' 48''$$

$$\begin{array}{r} 1 \sin 2D = 0,970769 - 1 \\ 477121 \\ \hline 0,447890 \quad \underline{2,80472} \end{array}$$

$$1 \cos D = 0,915437 - 1$$

$$\begin{array}{r} 1 \cos D = 0,830874 - 1 \\ 845098 \\ \hline 0,675972 \quad 474211 \\ \hline 3 \\ \hline 1,74211 \end{array}$$

$$a_2 = 4,35528$$

$$a_2 \sin D =$$

$$\begin{array}{r} 1 a_2 = 0,639016 \\ 0,970769 \\ \hline 0,609785 \\ \hline \underline{\underline{a_2 \sin 2D = 4,07179}} \end{array}$$

$$\begin{array}{r} 33 \quad 52 \quad 42'' \quad - \quad 0,00000 \\ 34 \quad 8 \quad 41'' \quad - \quad -0,16309 \\ \hline 16' \quad - \quad -0,16309 \\ 27' 43'' \quad - \quad -0,16309 \quad \frac{27,7}{16} \end{array}$$

$$\begin{array}{r} 16309 \times 27,7 \\ 32618 \\ 114163 \\ \hline 114163 \\ \hline 4512593 : 16 = 28235 \\ \hline 32 \\ 731 \\ 128 \\ \hline 37 \\ 32 \\ \hline 55 \\ 48 \\ \hline 79 \end{array}$$

$$\underline{a_3 \sin 2D = -0,28235}$$

$$\begin{array}{r} 33 \quad 52 \quad 42'' \quad - \quad -5,36868 \\ 34 \quad 8 \quad 41'' \quad - \quad -5,41506 \end{array}$$

$$\begin{array}{r} 16' \quad 0,04632 \\ 27' 43'' \quad - \quad 0,04632 \times \frac{27,7}{16} \end{array}$$

$$\begin{array}{r} 4632 \times 27,7 \\ 9264 \\ 32424 \\ \hline 32424 \\ \hline 1283064 : 16 = 8019 \\ \hline 128 \\ 30 \\ 16 \\ \hline 146 \end{array}$$

$$\underline{\underline{a_4 \sin 2D = -5,44987}}$$

$$\begin{array}{r} 5,36868 \\ 8019 \\ \hline 5,44987 \end{array}$$

$$\underline{D = 34^{\circ} 36' 24''}$$

$$\delta = 34^{\circ} 8' 41''$$

$$f \cos \delta = 0,917833 - 1$$

$$f \cos^2 \delta = 0,835666 - 1$$

$$\begin{array}{r} 845098 \\ \hline 0,680764 \end{array}$$

$$\begin{array}{r} 479473 \\ \hline 3 \end{array}$$

$$1,79473 \times 5$$

$$8,97365 : 2 = 4,48683$$

$$94,48683 = 0,651939$$

$$f \sin^2 \delta = 0,968045 - 1$$

$$\begin{array}{r} \hline 0,619984 \end{array}$$

$$a_2 \sin 2\delta = \underline{\underline{4,16854}}$$

$$f \sin 2\delta = 0,968045$$

$$\begin{array}{r} 477120 \\ \hline 0,945165 \end{array}$$

$$\underline{\underline{2,78718}}$$

$$f \cos^3 \delta = 0,835666 - 1$$

$$\begin{array}{r} 3,032276 \\ \hline 2,867882 \end{array}$$

$$\begin{array}{r} 737,704 \\ 621,840 \\ \hline 1359,544 \end{array}$$

$$-1390,629$$

$$31,085 \times 3$$

$$93,255 : 16 = 5,82844 = -a_4$$

$$\begin{array}{r} 80 \\ \hline 132 \end{array}$$

$$128$$

$$45$$

$$32$$

$$135$$

$$128$$

$$70$$

$$64$$

$$60$$

$$1291,629$$

$$99$$

$$\underline{\underline{1390,629}}$$

$$f \cos^4 \delta$$

$$0,506998 - 1$$

$$3,286681$$

$$\underline{\underline{2,793679}}$$

$$f - a_4 = 0,765553$$

$$\begin{array}{r} 968045 - 1 \\ \hline 0,733598 \end{array} \quad \text{and } a_4 = \underline{\underline{-5,41500}}$$

$$0,733598$$

$$f \cos^3 \delta = 0,835666 - 1$$

$$\begin{array}{r} 2,322219 \\ \hline 2,157885 \end{array}$$

$$-143,842$$

$$+143,379$$

$$-0,463 \times$$

$$1,389 : 8 = 0,173625$$

$$f \cos^4 \delta = 0,671332 - 1$$

$$\begin{array}{r} 2,363612 \\ \hline 2,034944 \end{array}$$

$$108,379$$

$$35$$

$$\underline{\underline{143,379}}$$

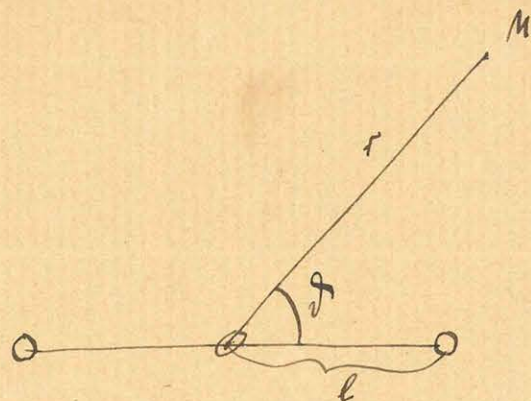
$$f - a_3 = 0,239613 - 1$$

$$\begin{array}{r} 0,968045 - 1 \\ \hline 0,207658 - 1 \end{array}$$

$$0,207658 - 1$$

$$\underline{\underline{\text{and } a_3 = -0,161309}}$$

$$F = \frac{21M}{r^3} \left[2,78718 \eta_1 + \frac{4,16854}{r^2} \eta_2 - \frac{0,16309}{r^4} \eta_3 - \frac{5,41500}{r^6} \eta_4 \right]$$



$$F = \frac{27M \sin \alpha}{r^2} \left[3 \cos \alpha \left(\frac{l}{r} \right) \right]$$

$$F = \frac{27M \sin \alpha}{r^2} \left[\frac{3 \cos \alpha}{r} \int_0^l l^2 dm + \frac{3P_2 + P_1^3}{r^3} \int_0^l l^4 dm + \frac{3P_2 + 3P_1 P_2^2 + 3P_1^2 P_2}{r^5} \int_0^l l^6 dm + \frac{3P_2 + 3P_1 P_2^2 + 3P_1^2 P_2 + 3P_1^3}{r^7} \int_0^l l^8 dm \right]$$

$$\alpha = 34^\circ 8' 41'' = \alpha_1$$

$$F_1 = \frac{27M \sin \alpha_1}{r^2} \left[\frac{2,482875}{r} \int_0^l l^2 dm + \frac{1,094264}{r^3} \int_0^l l^4 dm - \frac{0,502331}{r^5} \int_0^l l^6 dm \right]$$

$$\alpha = 60^\circ 16' 59'' = \alpha_2$$

$$F_2 = \frac{27M \sin \alpha_2}{r^2} \left[\frac{1,487145}{r} \int_0^l l^2 dm - \frac{1,195303}{r^3} \int_0^l l^4 dm + \frac{0,326933}{r^5} \int_0^l l^6 dm \right]$$

$$1,195 \dots F_1 \sin \alpha_2 + 1,094 \dots F_2 \sin \alpha_1 = \frac{27M \sin \alpha_1 \sin \alpha_2}{r^3} \left[1,195 \dots \times 2,482 \dots + 1,094 \dots \times 1,487 \dots \right] \int_0^l l^2 dm$$

$$1,038103 F_1 + 0,614336 F_2 = \frac{27M}{r^3} 2,24048 K$$

$$1,038103 \varepsilon_1 + 0,614336 \varepsilon_2 = \frac{27M}{r^3} 2,24048 \left(\frac{K}{r} \right)$$

[4,016240] [0,788406-1] [0,350342]

$$r = 75 \text{ cm.} \quad \varepsilon_1 = 50,5 \quad \varepsilon_2 = 27,0$$

$$r = 94,5 \text{ cm.} \quad \varepsilon_1 = 23,4 \quad \varepsilon_2 = 15,0$$

$$r_1 = 75 \quad 1,038 \dots \varepsilon_1 + 0,614 \dots \varepsilon_2 = 68,9$$

$$r_2 = 94,5 \quad 1,038 \dots \varepsilon_1 + 0,614 \dots \varepsilon_2 = 33,6$$

$$\frac{r_2^3}{r_1^3} = 2,00$$

$$\frac{33,6}{68,9} = 2,05$$

$$F_1 = \frac{27M}{r^2} \left[\right]$$

$$\left(\frac{T}{2k_1}\right) \varepsilon_1 \frac{r^3}{\gamma M} = 2,78718 + \frac{4,16854}{r^2} \frac{k_2}{k_1} - 0,00189 - 0,00692$$

$$\left(\frac{T}{2k_1}\right) \varepsilon_2 \frac{r^3}{\gamma M} = 2,58310 - \frac{2,75503}{r^2} \frac{k_2}{k_1} - 0,010033 + 0,00580$$

$$\begin{array}{r} - 0,00881 \\ 2,78718 \\ \hline 2,77837 \end{array} \qquad \begin{array}{r} 2,58890 \\ 01003 \\ \hline 2,57887 \end{array}$$

$$\left. \begin{array}{l} \frac{T}{2k_1} \frac{\varepsilon_1 r^3}{M} \frac{1}{\gamma} - \frac{4,16854}{r^2} \frac{k_2}{k_1} = 2,78718 \\ \frac{T}{2k_1} \frac{\varepsilon_2 r^3}{M} \frac{1}{\gamma} + \frac{2,75503}{r^2} \frac{k_2}{k_1} = 2,58310 \end{array} \right\}$$

$$\begin{array}{l} \frac{T}{2k_1} \varepsilon_1 = 0,645655-7 \\ \gamma r^3 = \frac{4,667097}{0,312752-2} \\ \gamma M = \frac{4,983644}{0,329108-7} \end{array}$$

$$\begin{array}{l} \frac{T}{2k_1} \varepsilon_2 = 0,986414-7 \\ \gamma r^3 = \frac{4,667097}{0,153511-2} \\ \gamma M = \frac{4,983644}{0,169867-7} \end{array}$$

$$\begin{array}{l} 4,16854 = 0,619944 \\ \gamma r^2 = \frac{3,111398}{0,508586-3} \end{array}$$

$$\begin{array}{l} 2,75503 = 0,440126 \\ \gamma r^2 = \frac{2,111398}{0,328728-3} \end{array}$$

$$\begin{array}{l} 0,000000213358 \frac{1}{\gamma} - 0,00322542 \frac{k_2}{k_1} = 2,78718 \\ 0,000000147866 \frac{1}{\gamma} + 0,00213171 \frac{k_2}{k_1} = 2,58310 \end{array}$$

$$\begin{array}{r} 0,329108-7 \\ 0,328728-3 \\ \hline 0,657836-10 \end{array}$$

$$\begin{array}{r} 0,169867-7 \\ 0,508586-3 \\ \hline 0,678453-10 \end{array}$$

$$N = 0,000000000454812$$

$$N = \frac{476929}{0,000000000931746}$$

$$\begin{array}{r} 2,77 = 0,443700 \\ 328728-3 \\ \hline 0,772598-3 \end{array}$$

$$\begin{array}{r} 2,58310 = 0,418420 \\ 0,508586-3 \\ \hline 0,926915-3 \end{array}$$

$$\begin{array}{r} 0,0059227 \\ 0,0083180 \\ \hline 0,0142407 \end{array}$$

$$\begin{array}{r} \gamma d = 0,123296-2 \\ \gamma N = 0,969300-10 \\ \hline 0,846004-8 \end{array}$$

$$\begin{array}{r} \gamma d = 0,153531 \\ 969300 \\ \hline 0,815769 \\ \hline 654 \end{array}$$

~~XXXXXXXXXXXX~~

$$\gamma = 0,0000000654$$

$$\delta_1 = 34^\circ 8' 41'' \quad \delta_2 = 60^\circ 16' 19''$$

$$\left(\frac{\Gamma}{2k_1}\right) \varepsilon_1 = \frac{2M}{7^3} 2,78718 + \frac{2M}{7^5} 4,16854 \frac{k_2}{k_1} - 0,16309 \frac{2M}{7^7} \frac{k_3}{k_1} - 5,41500 \frac{2M}{7^9} \frac{k_4}{k_1}$$

$$\left(\frac{\Gamma}{2k_1}\right) \varepsilon_2 = \frac{2M}{7^3} 2,58310 - 2,75503 \frac{2M}{7^5} \frac{k_2}{k_1} - \frac{0,85727}{7^7} \frac{k_3}{k_1} \frac{2M}{7^9} + 4,54175 \frac{2M}{7^9} \frac{k_4}{k_1}$$

$$k_2 = \frac{ml^2}{4} + \frac{\mu l^2}{12} \quad k_3 = \frac{ml^6}{64} + \frac{\mu l^6}{7 \cdot 64} = \frac{ml^6}{64} + \frac{\mu l^6}{448}$$

$$k_3 = \frac{ml^4}{16} + \frac{\mu l^4}{2 \cdot 16} \quad k_4 = \frac{ml^8}{256} + \frac{\mu l^8}{9 \cdot 256} = \frac{ml^8}{256} + \frac{\mu l^8}{2304}$$

$$m = 56,661 + 1,806 = 58,467$$

$$l_1 = 23,80$$

$$l_1 = 1,376577$$

$$\mu = 7,812$$

$$l^2 = 22,02 \quad l = 1,342817$$

$2m = 1,766985$ $2l^2 = 2,753154$ $\hline 4,520139$ $ml^2 = 33123,8$ $\frac{ml^2}{4} = 8280,0$ $\hline 315,7$ $k_1 = 8596,7$	$2\mu = 0,892762$ $2l^2 = 1,079181$ $\hline 0,813581-1$ $2l^2 = 2,685634$ $\hline 2,499215$ $\frac{\mu l^2}{12} = 315,7$	$2m = 1,766985$ $2l^6 = 8,259462$ $\hline 10,026447$ $2l^6 = 1,806180$ $\hline 8,220267$ $\frac{ml^6}{64} = 166061000$ $\hline 1987860$ $k_3 = 168048860$	$2\mu = 0,892762$ $2l^6 = 8,056902$ $\hline 8,949664$ $2l^6 = 2,651278$ $\hline 6,298386$ $\frac{\mu l^2}{448} = 1987860$
$2m = 1,766985$ $2l^8 = 11,012616$ $\hline 12,779601$ $2l^8 = 2,408240$ $\hline 10,371361$ $\frac{ml^8}{256} = 235159,00000$ $\hline 187420000$ $k_4 = 23703320000$	$2\mu = 0,892762$ $2l^8 = 10,742536$ $\hline 11,635298$ $2l^8 = 3,362482$ $\hline 8,272816$ $\frac{\mu l^8}{2304} = 187420000$	$2k_3 = 8,225306$ $\hline 103,6$ $\hline 20,7$ $\hline 2,1$ $2k_3 = 8,225432$ $2k_1 = 3,934332$ $\hline 2 \frac{k_3}{k_1} = 4,291100$	$2k_4 = 6,222796$ $\hline 0,068304-2$ $2l^6 = 0,207658-1$ $\hline 0,275962-3$ $-0,0018978 \quad 380$
$2k_4 = 10,374809$ $2k_1 = 3,934332$ $\hline 2 \frac{k_4}{k_1} = 6,440477$	$2 \frac{k_3}{k_1} = 4,291100$ $2 \frac{k_4}{k_1} = 6,440477$	$2 \frac{k_3}{k_1} = 4,291100$ $2 \frac{k_4}{k_1} = 6,222796$ $\hline 0,068304-2$ $0,933118-1$ $\hline 0,001422-2$ $0,010033 \quad 600$	$2 \frac{k_3}{k_1} = 4,291100$ $2 \frac{k_4}{k_1} = 6,222796$ $\hline 0,068304-2$ $0,933118-1$ $\hline 0,001422-2$ $0,010033 \quad 600$
$2 \frac{k_4}{k_1} = 6,440477$ $2l^6 = 9,334194$ $\hline 0,106283-3$ $\hline 733598$ $\hline 0,839881-3$ $-0,0069164$ $\hline 340$	$0,106283-3$ $\hline 657176$ $\hline 0,763959-3$ $+ 0,0058064$ $\hline 60$		

50°

$$\begin{array}{r} 1 \cos^2 50^\circ = 0,616134 - 1 \\ 3,032216 \\ \hline 2,648350 \end{array}$$

$$\begin{array}{r} 1 \cos^4 50^\circ = 0,232268 - 1 \\ 3,439806 \\ \hline 2,672074 \end{array}$$

$$\begin{array}{r} 1 \cos^6 50^\circ = 0,848402 - 2 \\ 3,286681 \\ \hline 2,135083 \end{array}$$

$$\begin{array}{r} 444,990 \\ 136,484 \\ \hline 581,474 \\ 568,974 \end{array}$$

$$\begin{array}{r} 469,974 \\ 99 \\ \hline 568,974 \end{array}$$

$$12,500 \times 3$$

$$37,500 : 16 = 2,34375$$

$$\begin{array}{r} 32 \\ 55 \\ 48 \\ \hline 70 \\ 64 \\ \hline 70 \\ 48 \\ \hline 120 \\ 122 \\ \hline 20 \end{array}$$

$$a_4 = + 2,34375$$

$$\begin{array}{r} q_{44} = 0,369912 \\ 993351 \\ \hline 0,363263 \end{array}$$

$$+ 2,30814$$

60°

$$\begin{array}{r} 1 \cos^2 60^\circ = 0,698970 - 1 \\ 3,032216 \\ \hline 2,430156 \end{array}$$

$$\begin{array}{r} 1 \cos^4 60^\circ = 0,795880 - 2 \\ 3,439806 \\ \hline 2,235686 \end{array}$$

$$\begin{array}{r} 1 \cos^6 60^\circ = 0,193820 - 2 \\ 3,286681 \\ \hline 1,480501 \end{array}$$

$$\begin{array}{r} 269,250 \\ 30,234 \\ \hline 299,484 \\ 271,063 \end{array}$$

$$\begin{array}{r} 172,063 \\ 99 \\ \hline 271,063 \end{array}$$

$$28,421 \times 3 =$$

$$85,263 : 16 = 5,32894$$

$$\begin{array}{r} 80 \\ 52 \\ 48 \\ \hline 46 \\ 32 \\ \hline 143 \\ 128 \\ \hline 150 \\ 144 \\ \hline 60 \end{array}$$

$$a_4 = + 5,32894$$

$$\begin{array}{r} q_{44} = 0,726641 \\ 937531 \\ \hline 0,064172 \\ 4,61200 \end{array}$$

33° 52' 42"

$$\begin{array}{r} 1 \cos^2 \delta = 0,838390 - 1 \\ 3,032216 \\ \hline 2,820606 \end{array}$$

$$\begin{array}{r} 1 \cos^4 \delta = 0,626280 - 1 \\ 3,439806 \\ \hline 3,116586 \end{array}$$

$$\begin{array}{r} 1 \cos^6 \delta = 0,515120 - 1 \\ 3,286681 \\ \hline 2,801851 \end{array}$$

$$\begin{array}{r} 242,346 \\ 633,652 \\ \hline 1375,998 \\ - 1406,933 \end{array}$$

$$\begin{array}{r} 1304,933 \\ 99 \\ \hline 1406,933 \end{array}$$

$$30,935 \times 3$$

$$92,805 : 16 = 5,80031$$

$$\begin{array}{r} 80 \\ 128 \\ 128 \\ \hline 050 \\ 40 \\ \hline 20 \end{array}$$

$$15,80031 \times 0,763451$$

$$1 \cos^2 \delta = 0,966416 - 1$$

$$\frac{0,229867}{0,966416}$$

$$- 5,36868$$

$$\begin{array}{r}
 3 \sin 67^{\circ} 48' 24'' = 0,966416 - i \quad 24 \times \frac{0,86}{172} \\
 \underline{477121} \\
 0,443537 \\
 2,47675
 \end{array}$$

$$\begin{array}{r}
 14,56220 = 0,659174 \\
 \underline{466416} \\
 0,625590 \\
 4,22270
 \end{array}$$

$$\begin{array}{r}
 3 \sin 124^{\circ} 4' 50'' = \cancel{4,74} 0,918161 - i \\
 \underline{477121} \\
 0,395282 \\
 2,48475
 \end{array}$$

$$\begin{array}{r}
 1765315 = 0,562667 \\
 \underline{918161} \\
 0,480828 \\
 3,02572
 \end{array}$$

MAGYAR
TUDOMÁNYOS AKADÉMIA
KÖNYVTÁRA

45°

$$\begin{aligned} 1 \cos^2 50^\circ &= 0,676134 - 1 \\ 5200 &= 2,322290 \\ \hline &1,938353 \end{aligned}$$

$$\begin{aligned} 1 \cos^2 \delta &= 0,232268 - 1 \\ 1201 &= 2,363612 \\ \hline &1,595880 \end{aligned}$$

$$\begin{aligned} &39,4348 \\ &35 \\ \hline &74,4348 \\ &86,7666 \\ \hline &12,3318 \times 3 \end{aligned}$$

$$36,9954 : 8 = 4,6292825 \quad 2a_3 = 0,665512$$

$$\begin{aligned} &993351 - 1 \\ \hline &0,658863 \\ &4,55893 \end{aligned}$$

$$\begin{aligned} a_3 &= \underline{\underline{-4,62958}} \quad \delta = 50^\circ \\ a_3 &= \underline{\underline{-4,62928}} \end{aligned}$$

$\delta = 40^\circ$

$$\begin{aligned} 1 \cos^2 \delta &= 0,768508 - 1 \\ &2,322290 \\ \hline &2,090727 \end{aligned}$$

$$\begin{aligned} 1 \cos^2 \delta &= 0,537016 - 1 \\ &2,363612 \\ \hline &1,900628 \end{aligned}$$

$$\begin{aligned} &79,5478 \\ &35 \\ \hline &114,5478 \\ &123,2339 \\ \hline &8,6858 \times 3 \end{aligned}$$

$$\begin{aligned} &26,7168 : 8 = 3,2646 \\ &26,0559 : 8 = 3,256985 \end{aligned}$$

$$\begin{aligned} a_3 &= \underline{\underline{-3,2646}} \\ a_3 &= \underline{\underline{-3,25699}} \end{aligned}$$

$$\begin{aligned} 1a_3 &= 0,512817 \\ &993351 - 1 \\ \hline &0,506168 \quad \underline{\underline{3,20751}} \end{aligned}$$

$\delta = 33^\circ 52' 42''$

$$\begin{aligned} 1 \cos^2 \delta &= 0,838390 - 1 \\ &2,322290 \\ \hline &2,160609 \end{aligned}$$

$$\begin{aligned} 1 \cos^2 \delta &= 0,676780 - 1 \\ &2,363612 \\ \hline &2,040392 \\ &109,7468 \\ &35 \\ \hline &144,7468 \\ &144,7467 \end{aligned}$$

$$a_3 = \underline{\underline{0,0000}}$$

$\delta = 62^\circ 2' 25''$

$$\begin{aligned} 1 \cos^2 \delta &= 0,342067 - 1 \\ &2,322290 \\ \hline &1,664286 \\ &46,1621 \end{aligned}$$

$$\begin{aligned} 1 \cos^2 \delta &= 0,684134 - 2 \\ &2,363612 \\ \hline &1,042246 \\ &11,1621 \\ &35 \\ \hline &46,1621 \end{aligned}$$

$$a_3 = \underline{\underline{0,00000}}$$

$$\begin{aligned} 1 \cos^2 \delta &= 0,838390 - 1 \\ 22 &= 0,845098 \\ \hline &0,683488 \\ &4,82488 \\ &3 \\ \hline &1,82488 \times 5 \\ \hline &9,12440 : 2 = 4,56220 \end{aligned}$$

$$\begin{aligned} 1 \cos^2 \delta &= 0,342067 - 1 \\ &845098 \\ \hline &0,187165 \\ &1,53874 \\ &3 \\ \hline &1,46126 \\ &3,65315 \end{aligned}$$

$$\frac{5}{2}(7\cos^2\vartheta - 3)$$

$\vartheta = 45^\circ \quad \cos\vartheta = \frac{1}{\sqrt{2}} \quad \cos^2\vartheta = \frac{1}{2} \quad \frac{7}{2} = 3,5$

$$\frac{3,5}{0,5} = 7$$

$$7 - 3 = 4$$

$$4 \cdot \frac{5}{2} = 10$$

$$\frac{5}{2}(7\cos^2\vartheta - 3) = 1,25 \quad \vartheta = 45^\circ$$

$\vartheta = 30^\circ \quad \cos\vartheta = \frac{\sqrt{3}}{2} \quad \cos^2\vartheta = \frac{3}{4} \quad \frac{21}{4} = 5,25$

$$\frac{5,25}{3} = 1,75$$

$$1,75 \times 5 = 8,75$$

$$8,75 - 3 = 5,75$$

$$5,75 \cdot \frac{5}{2} = 14,375$$

$$\frac{5}{2}(7\cos^2\vartheta - 3) = 5,625 \quad \vartheta = 30^\circ$$

$\vartheta = 60^\circ \quad \cos\vartheta = \frac{1}{2} \quad \cos^2\vartheta = \frac{1}{4} \quad \frac{7}{4} = 1,75$

$$\frac{1,75}{3} = 0,5833$$

$$0,5833 \times 5 = 2,9165$$

$$2,9165 - 3 = -0,0835$$

$$-0,0835 \cdot 2 = -0,167$$

$$\frac{5}{2}(7\cos^2\vartheta - 3) = -3,125 \quad \vartheta = 60^\circ$$

$$3,125 = 0,450123$$

$$\sin 60^\circ = 0,8660254$$

$$0,450123 \cdot 0,8660254 = 0,390184$$

$$0,390184 - 1 = -0,609816$$

$$-0,609816 \cdot 2 = -1,219632$$

$\vartheta = 40^\circ$

$$\cos 40^\circ = 0,7660444431$$

$$\cos^2 40^\circ = 0,5868240685$$

$$7 \cos^2 40^\circ = 4,1077684795$$

$$4,1077684795 - 3 = 1,1077684795$$

$$1,1077684795 \cdot \frac{5}{2} = 2,76942169875$$

$$\frac{5}{2}(7\cos^2\vartheta - 3) = 2,76943 \quad \vartheta = 40^\circ$$

$$2,76943 = 0,442391$$

$$\sin 40^\circ = 0,6427876097$$

$$0,442391 \cdot 0,6427876097 = 0,284368$$

$$0,284368 - 1 = -0,715632$$

$\vartheta = 50^\circ$

$$\cos 50^\circ = 0,6427876097$$

$$\cos^2 50^\circ = 0,4131759172$$

$$7 \cos^2 50^\circ = 2,8922314205$$

$$2,8922314205 - 3 = -0,1077685795$$

$$-0,1077685795 \cdot 2 = -0,215537159$$

$$\frac{5}{2}(7\cos^2\vartheta - 3) = -0,26943 \quad \vartheta = 50^\circ$$

$$-0,26943 = 0,430446$$

$$\sin 50^\circ = 0,7660444431$$

$$0,430446 \cdot 0,7660444431 = 0,329673$$

$$0,329673 - 1 = -0,670327$$

$$\frac{3}{8}(231\cos^4\vartheta - 210\cos^2\vartheta + 35) = a_3$$

$\vartheta = 30^\circ \quad \cos^2\vartheta = \frac{3}{4} \quad \cos^4\vartheta = \frac{9}{16}$

$$231 \cdot \frac{9}{16} = 129,9375$$

$$210 \cdot \frac{3}{4} = 157,5$$

$$129,9375 - 157,5 = -27,5625$$

$$-27,5625 + 35 = 7,4375$$

$$7,4375 \cdot \frac{3}{8} = 2,7890625$$

$$2,7890625 = 0,445458$$

$$\sin 30^\circ = 0,5$$

$$0,445458 \cdot 0,5 = 0,222729$$

$$0,222729 - 1 = -0,777271$$

$\vartheta = 45^\circ \quad \cos^2\vartheta = \frac{1}{2} \quad \cos^4\vartheta = \frac{1}{4}$

$$231 \cdot \frac{1}{4} = 57,75$$

$$210 \cdot \frac{1}{2} = 105$$

$$57,75 - 105 = -47,25$$

$$-47,25 + 35 = -12,25$$

$$-12,25 \cdot \frac{3}{8} = -4,59375$$

$$a_3 = -4,59375 \quad \vartheta = 45^\circ$$

$$-4,59375 = 0,662167$$

$\vartheta = 60^\circ \quad \cos^2\vartheta = \frac{1}{4} \quad \cos^4\vartheta = \frac{1}{16}$

$$231 \cdot \frac{1}{16} = 14,4375$$

$$210 \cdot \frac{1}{4} = 52,5$$

$$14,4375 - 52,5 = -38,0625$$

$$-38,0625 + 35 = -3,0625$$

$$-3,0625 \cdot \frac{3}{8} = -1,1484375$$

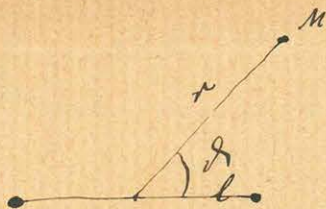
$$a_3 = -1,1484375 \quad \vartheta = 60^\circ$$

$$-1,1484375 = 0,060107$$

$$\sin 60^\circ = 0,8660254$$

$$0,060107 \cdot 0,8660254 = 0,052073$$

$$0,052073 - 1 = -0,947927$$



$$\alpha F = \frac{2 \cdot M \sin d}{r^2} \ln \left[3P_1 \left(\frac{l}{r}\right) + (3P_3 + 6P_2P_1 + P_1^3) \left(\frac{l}{r}\right)^2 + (3P_5 + 6P_4P_1 + 3P_3^2P_1 + 6P_2P_3 + 3P_1^2P_2^2) \left(\frac{l}{r}\right)^3 + \dots \right]$$

$$3P_3 = \frac{3}{2} (5 \cos^3 d - 3 \cos d) = \frac{15}{2} \cos^3 d - \frac{9}{2} \cos d$$

$$6P_1P_2 = 6 \cdot \frac{1}{2} \cos d (\cos^2 d - 1) = 3 \cos^3 d - 3 \cos d$$

$$P_1^3 = \cos^3 d$$

$$\frac{15}{2} + \frac{9}{2} + \frac{2}{2} = \frac{35}{2} \quad 3P_3 + 6P_1P_2 + P_1^3 = \frac{35}{2} \cos^3 d - \frac{15}{2} \cos d = \frac{5}{2} (7 \cos^3 d - 3 \cos d)$$

$$\frac{9}{2} + \frac{6}{2} = \frac{15}{2}$$

$$6P_1P_4 = 6 \cos d \cdot \frac{35}{8} (\cos^4 d - \frac{6}{7} \cos^2 d + \frac{3}{35}) = \frac{6 \cdot 35}{8} \cos^5 d - \frac{6 \cdot 35 \cdot 6}{8 \cdot 7} \cos^3 d + \frac{6 \cdot 35 \cdot 3}{8 \cdot 35} \cos d$$

$$3P_1^2P_3 = 3 \cos^2 d \cdot \frac{1}{2} (5 \cos^3 d - 3 \cos d) = \frac{3}{2} (5 \cos^5 d - 3 \cos^3 d)$$

$$6P_2P_3 = 6 \cdot \frac{1}{2} (3 \cos^2 d - 1) (5 \cos^3 d - 3 \cos d) \cdot \frac{1}{2} = \frac{3}{2} (3 \cdot 5 \cos^5 d - 6 \cdot 14 \cos^3 d + 6 \cdot 3 \cos d)$$

$$3P_1P_2^2 = 3 \cos d \cdot \frac{1}{4} (3 \cos^2 d - 1)^2 = \frac{3}{4} (9 \cos^5 d - 6 \cdot 2 \cdot 3 \cos^3 d + 3 \cos d)$$

$$\frac{189}{8} + \frac{210}{8} + \frac{60}{8} + \frac{180}{8} + \frac{54}{8} = \frac{693}{8} = \frac{3}{8} \cdot 231$$

$$\frac{210}{8} + \frac{180}{8} + \frac{36}{8} + \frac{168}{8} + \frac{36}{8} = \frac{630}{8} = \frac{3}{8} \cdot 210$$

$$\frac{45}{8} + \frac{18}{8} + \frac{36}{8} + \frac{6}{8} = \frac{105}{8} = \frac{3}{8} \cdot 35$$

$$\alpha F = \frac{2 \cdot M \sin d}{r^2} \ln \left[3 \cos d \left(\frac{l}{r}\right) + \frac{5}{2} (7 \cos^3 d - 3 \cos d) \left(\frac{l}{r}\right)^2 + \frac{3}{8} (231 \cos^5 d - 210 \cos^3 d + 35) \left(\frac{l}{r}\right)^3 \right]$$

$$\cos^2 d = \frac{3}{7} \quad 33 = 0,477121 \quad 57,2,43 = 23$$

$$17 = 0,845098 \quad \frac{168}{246}$$

$$1 \cos d = 0,816012 - 1$$

$$d_1 = 49^\circ 6' 23''$$

$$231x^2 - 210x + 35 = 0$$

$$x = \frac{210 \pm \sqrt{(210)^2 - 4 \cdot 35 \cdot 231}}{462}$$

$$x = \frac{251,9524}{462}, \frac{168,0476}{462}$$

$$140 \times 231 = 32340$$

$$(210)^2 = 44100$$

$$11760$$

$$51740 = 3,245513$$

$$\sqrt{11760} = 1,622757$$

$$\sqrt{11760} = 41,9524$$

$$\sqrt{11760} = 4,040407$$

$$\sqrt{11760} = 2,035203$$

$$108,4433$$

$$\frac{210}{318,4833} = 100,5567$$

$$\sqrt{251,9524} = 2,901317$$

$$\sqrt{168,0476} = 2,664642$$

$$4,736675 - 1$$

$$\sqrt{251,9524} = 2,225462$$

$$\sqrt{168,0476} = 2,225462$$

$$684642$$

$$0,560820 - 1$$

$$d_2 = 56^\circ 57' 5''$$

$$d_3 = 68^\circ 40' 6''$$

$$P_5 = \frac{1 \cdot 2 \cdot 3 \cdot 4 \cdot 5 \cdot 6}{1 \cdot 2 \cdot 3 \cdot 4 \cdot 5} \left[\cos^5 d - \frac{5 \cdot 4 \cdot 3 \cdot 2}{2 \cdot 9} \cos^3 d + \frac{5 \cdot 4 \cdot 3 \cdot 2}{2 \cdot 4 \cdot 3 \cdot 2} \cos d \right] = \frac{63}{8} \left[\cos^5 d - \frac{10}{9} \cos^3 d + \frac{5}{2} \cos d \right]$$

$$\sqrt{318,4433} = 2,503032$$

$$\sqrt{9462} = 2,664642$$

$$1 \cos^2 d = 0,838390 - 1$$

$$1 \cos d = 0,919195 - 1$$

$$\sqrt{101,5567} = 2,006709$$

$$\sqrt{2,664642} = 2,664642$$

$$0,342067 - 1$$

$$1 \cos d = 0,671034 - 1$$

$$d_2 = 33^\circ 52' 42''$$

$$d_3 = 62^\circ 2' 25''$$

$$\underline{D = 62^{\circ} 2' 25''}$$

$$\begin{array}{r} \sin^2 D = 0,342067-1 \\ 3,032216 \\ \hline 2,374283 \end{array}$$

$$\begin{array}{r} \cos^2 D = 0,684134-2 \\ 3,439806 \\ \hline 2,123940 \end{array}$$

$$\begin{array}{r} \sin^2 D = 0,026201-2 \\ 3,286681 \\ \hline 1,312882 \end{array}$$

$$\begin{array}{r} 236,748 \\ 20,553 \\ \hline 257,301 \end{array}$$

$$\begin{array}{r} 133,027 \\ 90 \\ \hline 223,027 \end{array}$$

$$257,301$$

$$223,027$$

$$\underline{34,274 \times 3}$$

$$102,822 : 16 = \underline{5,80137}$$

$$90$$

$$128$$

$$128$$

$$\underline{022}$$

$$16$$

$$60$$

$$48$$

$$\underline{120}$$

$$25,80137 = 0,763531$$

$$\sin^2 D = 0,918161-1$$

$$\underline{0,681692}$$

$$4,80499$$

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$$P_6 = \frac{1 \cdot 3 \cdot 5 \cdot 7 \cdot 9 \cdot 11}{1 \cdot 2 \cdot 3 \cdot 4 \cdot 5 \cdot 6} \left[\cos^6 \theta - \frac{3 \cdot 5}{4 \cdot 11} \cos^4 \theta + \frac{5 \cdot 7 \cdot 9}{2 \cdot 3 \cdot 11} \cos^2 \theta - \frac{5 \cdot 7 \cdot 9 \cdot 11}{2 \cdot 3 \cdot 4 \cdot 11} \right]$$

$$= \frac{7 \cdot 9 \cdot 11}{2 \cdot 4 \cdot 6} \left[\cos^6 \theta - \frac{3 \cdot 5}{11} \cos^4 \theta + \frac{5 \cdot 7}{11} \cos^2 \theta - \frac{5 \cdot 7}{2 \cdot 3} \right]$$

$$\begin{array}{r} 21 \\ 21 \\ \hline 231 \end{array} \quad \begin{array}{r} 21 \cdot 15 \\ 105 \\ \hline 205 \end{array}$$

$$= \frac{1}{16} [3 \cdot 7 \cdot 11 \cos^6 \theta - 3 \cdot 5 \cdot 3 \cdot 7 \cos^4 \theta + 3 \cdot 5 \cdot 7 \cos^2 \theta - 5]$$

$$P_6 = \frac{1}{16} [231 \cos^6 \theta - 305 \cos^4 \theta + 105 \cos^2 \theta - 5]$$

$$P_7 = \frac{1}{16} [745 \cos^7 \theta - 1607 \cos^5 \theta + 427 \cos^3 \theta - 41 \cos \theta]$$

$$P_7 = \frac{1}{16} [429 \cos^7 \theta - 693 \cos^5 \theta + 315 \cos^3 \theta - 35 \cos \theta]$$

$$3P_7 + 6P_1P_6 + 3P_1P_3^2 + 3P_1^2P_5 + 6P_2P_5 + 3P_2^2P_3 + 6P_3P_4$$

$$= 3P_7 = \frac{1}{16} [3 \cdot 429 \cos^7 \theta - 3 \cdot 693 \cos^5 \theta + 3 \cdot 315 \cos^3 \theta - 3 \cdot 35 \cos \theta]$$

$$6P_1P_6 = 6 \cos \theta \cdot \frac{1}{16} [231 \cos^6 \theta - 305 \cos^4 \theta + 105 \cos^2 \theta - 5] = \frac{1}{16} [6 \cdot 231 \cos^7 \theta - 6 \cdot 305 \cos^5 \theta + 6 \cdot 105 \cos^3 \theta - 6 \cdot 5 \cos \theta]$$

$$3P_1P_3^2 = 3 \cos \theta [5 \cos^3 \theta - 3 \cos \theta]^2 = \frac{1}{16} [12 \cdot 25 \cos^7 \theta - 12 \cdot 2 \cdot 5 \cdot 3 \cos^5 \theta + 12 \cdot 9 \cos^3 \theta]$$

$$3P_1^2P_5 = 3 \cos^2 \theta \cdot \frac{1}{8} [63 \cos^5 \theta - 70 \cos^3 \theta + 15 \cos \theta] = \frac{1}{16} [6 \cdot 63 \cos^7 \theta - 6 \cdot 70 \cos^5 \theta + 6 \cdot 15 \cos^3 \theta]$$

$$6P_2P_5 = 6 \cdot \frac{1}{2} [3 \cos^2 \theta - 1] \cdot \frac{1}{8} [63 \cos^5 \theta - 70 \cos^3 \theta + 15 \cos \theta] = \frac{1}{16} [6 \cdot 3 \cdot 63 \cos^7 \theta - 6 \cdot (3 \cdot 70 + 63) \cos^5 \theta + 6 \cdot (70 + 3 \cdot 15) \cos^3 \theta - 6 \cdot 15 \cos \theta]$$

$$3P_2^2P_3 = 3 \cdot \frac{1}{4} \cdot \frac{1}{2} [9 \cos^4 \theta - 6 \cos^2 \theta + 1] [5 \cos^3 \theta - 3 \cos \theta] = \frac{1}{16} [6 \cdot 45 \cos^7 \theta - 6 \cdot (5 \cdot 6 + 27) \cos^5 \theta + 6 \cdot (5 + 18) \cos^3 \theta - 6 \cdot 3 \cos \theta]$$

$$6P_3P_4 = 6 \cdot \frac{1}{2} \cdot \frac{1}{8} [5 \cos^3 \theta - 3 \cos \theta] [35 \cos^4 \theta - 30 \cos^2 \theta + 3] = \frac{1}{16} [6 \cdot 5 \cdot 35 \cos^7 \theta - 6 \cdot (3 \cdot 35 + 5 \cdot 30) \cos^5 \theta + 6 \cdot (3 \cdot 5 + 3 \cdot 30) \cos^3 \theta - 6 \cdot 3 \cdot 3 \cos \theta]$$

3.429 = 1287	3.693 = 2079	3.315 = 945
6.231 = 1386	6.315 = 1890	6.105 = 630
12.25 = 300	12.2.5.3 = 10.3.12 = 360	12.9 = 108
6.63 = 378	6.70 = 420	6.15 = 90
6.3.63 = 6.189 = 1134	6.(3.70+63) = 6.273 = 1638	6.(70+3.15) = 690 = 6.115
6.45 = 270	6.(5.6+27) = 6.57 = 342	6.(5+18) = 138 = 6.23
6.5.35 = 80.35 = 1050	6.(3.35+5.30) = 6.255 = 1530	6.(3.5+3.30) = 630 = 6.105
	165+150	
	<u>8259</u>	<u>3231</u>
5805	3.2753	31177
3.1935		3.1077

3.35 = 105
6.5 = 30
6.15 = 90
6.3 = 18
6.3.3 = 54
<u>297 = 3.99</u>

$$F = 2 \frac{7M \sin 2\theta}{r^3} \left[3 \int r^2 dm + \frac{5}{2} \frac{7 \cos^2 \theta - 3}{r^2} \int r^4 dm + \frac{3}{8} \frac{231 \cos^6 \theta - 210 \cos^4 \theta + 35}{r^4} \int r^6 dm + \frac{3}{16} \frac{1935 \cos^6 \theta - 2753 \cos^4 \theta + 1077 \cos^2 \theta - 99}{r^6} \int r^8 dm \right]$$

$$1935 \cos^6 \theta - 2753 \cos^4 \theta + 1177 \cos^2 \theta - 99 = a_4$$

$$\theta = 45^\circ \quad \cos^2 \theta = \frac{1}{2} \quad \cos^4 \theta = \frac{1}{4} \quad \cos^6 \theta = \frac{1}{8}$$

$$1935 \cdot 8 = 241,875$$

$$2753 \cdot 4 = 688,25$$

$$1077 \cdot 2 = 538,800$$

$$\frac{99}{787,25}$$

$$a_4 = +8,08594$$

$$\begin{array}{r} 241,875 \\ 538,800 \\ \hline 780,375 \\ 787,250 \\ \hline 1068,5 \times 3 \\ 129,375 : 16 = 8,0859375 \\ 128 \\ \hline 137 \\ 128 \\ \hline 9 \\ 90 \\ 150 \\ 144 \\ \hline 60 \\ 48 \\ 120 \\ 112 \\ \hline 48 \end{array}$$

$$\begin{array}{r} 6,875 \times 3 \\ 20,625 : 16 = 1,28906 \\ 16 \\ \hline 46 \\ 32 \\ \hline 942 \\ 128 \\ \hline 146 \\ 144 \\ \hline 100 \end{array}$$

$$a_4 = -1,28906$$

$$\theta = 30^\circ \quad \cos^2 \theta = 0,937531 - 1$$

$$\cos^4 \theta = 0,875062 - 1$$

$$\cos^6 \theta = 0,750124 - 1$$

$$\cos^8 \theta = 0,625186 - 1$$

$$1077 = 8,032276$$

$$2753 = 3,439806$$

$$1935 = 3,286681$$

$$2,907278$$

$$3,189930$$

$$2,911867$$

$$\begin{array}{r} 807,752 \\ 216,332 \\ \hline 1624,084 \\ 1647,570 \end{array}$$

$$\begin{array}{r} 1548,570 \\ 99 \\ \hline 1647,570 \end{array}$$

$$\begin{array}{r} 51,517 \times 3 \\ 154,551 : 16 = 9,659435 \\ 148 \end{array}$$

$$a_4 = +9,659435$$

$$\begin{array}{r} 145 \\ 96 \\ \hline 95 \\ 80 \\ \hline 151 \\ 144 \\ \hline 70 \\ 64 \\ \hline 60 \\ 48 \\ \hline 120 \end{array}$$

$$a_4 = -4,40362$$

$$\begin{array}{r} 23,486 \times 3 \\ 70,458 : 16 = 4,40362 \\ 64 \\ \hline 64 \\ 58 \\ 48 \\ \hline 100 \\ 96 \\ \hline 40 \end{array}$$

$$\theta = 40^\circ \quad \cos^2 \theta = 0,768508 - 1$$

$$\cos^4 \theta = 0,537016 - 1$$

$$\cos^6 \theta = 0,44022$$

$$3,032276$$

$$3,439806$$

$$0,305524 - 1$$

$$2,800724$$

$$2,926822$$

$$3,286681$$

$$2,592205$$

$$\begin{array}{r} 632,040 \\ 391,025 \\ \hline 1023,035 \\ 1047,030 \end{array}$$

$$\begin{array}{r} 948,030 \\ 99 \\ \hline 1047,030 \end{array}$$

$$\begin{array}{r} 23,995 \times 3 \\ 104,061 : 16 = 7,12881 \\ 102 \end{array}$$

$$a_4 = 7,12881$$

$$\begin{array}{r} 20 \\ 16 \\ \hline 46 \\ 32 \\ \hline 141 \\ 128 \\ \hline 130 \\ 128 \end{array}$$

$$\begin{array}{r} 23,995 \times 3 = \\ 71,985 : 16 = 4,49906 \\ 64 \\ \hline 64 \\ 58 \\ 48 \\ \hline 100 \\ 96 \\ \hline 40 \end{array}$$

$$a_4 = -4,49906$$

$$\begin{array}{r} 9a_4 = 0,653122 \\ 993351 \\ \hline 0,646473 \end{array}$$

$$-4,43070$$

1891 September 3 L minner

Minner inesen

3h.	7m	159.1	122.5				
	77m	281.6	46.4	0.379	88.8		247.9
	51m	235.2	19.9	0.429	32.5		249.1
4h.	15m	255.1	6.8	392	19.8		250.0
	20m	248.3	2.6	382	4.9		250.2
	4m	250.9			1.9		250.2

A 15. mami slom korke nainvott lepjavat aminer jete odetise

5h.	35m	195.1					
6h.	3m	214.1	19.0				
	31m	207.9	6.2	6.327	14.3		209.4
7h.	0	709.3	1.4	6.229	5.0		209.1
					1.1		209.0

A korke nainvott lepjanak kairvotsaja a vianintes
reusotil = 13.4 cm.

Slom korkeat elveve

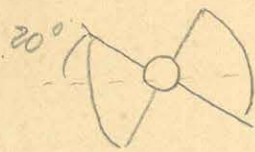
8h.	57m	247.2				
9h.	7m	247.4				
	17m	247.9				
	77m	248.0				
	37	248.1				
	47	248.1				
	57	248.2				
10h.	7	248.3				

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September 4 reggel

8h. 4m. 247.9

Compensatio' siphonal' odatene



9h.	56m.	247.0
10h.	2m.	246.0
	6m.	246.3
	16m.	249.1
	26m.	252.8
	36m.	255.8
	46m.	257.9
	56	259.3
11h.	6	261.0
	16	262.7
	26	264.0
	36	265.0
	46	266.1
	56m.	267.0
12h.	6	268.0
	16m.	268.8
	26	269.3
	36	270.1
	46	271.1
	56	272.0
1h.	6	272.8
3h.	16m.	275.8
	21m.	275.8
	26	275.9
	31m.	276.0

A 15. slankovnikat' nannovik' leppjavat' a minner feli' odatene

3h.	51m.	266.5
4h.	0	262.4
	10	259.5
	20	258.2
	25	258.3
	30	258.5

4h.	40mm	257.8
	50	261.0
5h.	0	263.0
	10	264.8
	20	266.5
	30	268.3
	40	269.9
	50	271.0
	60	272.2
6h.	10	273.1
	20	274.0
	30	274.9
	40	275.3
	50	276.0
7h.	0	276.7

Arvameet leip kaalija a reresõit : 43,4 m.

Alusot elveve

9h.	11mm	297.2
	21	296.9
	30	296.9
	40	297.9
	50	299.0
10h.	0m.	300.3

September 5 átletelt
 Compensatio supra nélkül

9h.	10h.				
		318.0			
	20	282.0			
	30	246.3			
	34	243.3	fordul		
	50	265.5		297	J
	60	273.0	fordul		0.327
10h.	27	263.3	"	97	0.433
	56	267.5	"	4.2	
11h.	25	267.0		0.5	0.12
	55	267.8			
12h.	25	268.0			
	55	268.2			

Compensatio
 265.7
 266.2
 266.8
 267.1
 267.6