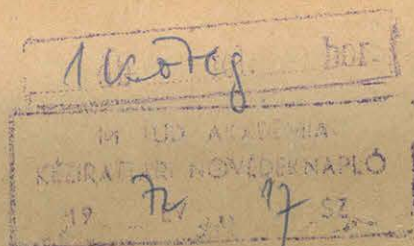


Ms 5107/3. Eötvös L. leveles jegyzetei



x=3

$x^2 + 100 = 109$

$109 \sqrt{109} = 11887.10,4402 \cdot 124041$

M. 5107/3

+	-	+	-
+27	+27	+90	-90
-180	+180	+600	+600
-109	-109	-218	-218
<hr/>		<hr/>	
	+458		
-262	98	+472	+292
		+292	

2

$x = 4 \quad (x^2 + 100)^2 = 116^2 = 13456$
 $\sqrt{x^2 + 100} = 10,7703$

$x = 5 \quad (x^2 + 100)^2 = 125^2 = 15625$
 $\sqrt{x^2 + 100} = 11,1803$

$\frac{1}{10,7703 \cdot 13456} = \frac{1}{144925}$

$\frac{1}{11,1803 \cdot 15625} = \frac{1}{174692}$

+	-	+	-
+48	+48	+120	-120
-240	+240	+600	+600
-116	-116	-232	-232
<hr/>		<hr/>	
-308	+172	+488	+248
-2125	+1184		

+	+	+	-
+75	+75	+150	-150
-300	+300	+600	+600
-125	-125	-250	-250
<hr/>		<hr/>	
-250	+250	+500	+200
1977.2			
1144		2003.4	

$x = 6 \quad 136^2 = 18496 \cdot 11,6619$

$x = 10 \quad 200 \quad 40000$

$\frac{1}{215698}$

$\frac{1}{40000 \cdot 14,1421} = \frac{1}{565684}$

+	+	+	-
+108	+108	+180	-180
-360	+360	+600	+600
-126	-126	-272	-272
<hr/>		<hr/>	
-388	+232	+508	+148

+	+	+	-
+300	+300	+300	-300
-600	+600	+600	+600
-200	-200	-400	-400
<hr/>		<hr/>	
+500	+700	+500	-100
-884	+1277	+884	-177
		+100	+500

MAOTAR TUDOMÁNYI AKADÉMIA KÖNYVTÁRA

$$\sqrt{\frac{2}{3}} = \frac{2}{3c} = z$$

$$x = \frac{1}{2} \sqrt{2a^2 - 3b^2}$$

$$a = \frac{2}{3} c$$

2,646

$$a = \frac{2}{3c} = z$$

$$a^2 - 3ac + c^2 = 0$$

$$2a^2 - 6ac + c^2 = 0$$

$$3a^2 + 6ac + a^2 + c^2$$

$$x = \frac{2}{3} \sqrt{\frac{1}{2}} = \frac{2}{3}$$

$$0 = 006 + x51 - 2x$$

$$0 = 408 - x00 + 2x2 -$$

$$a = -\frac{1}{3} c + \frac{2}{3} \sqrt{\frac{1}{2}}$$

$$a^2 + \frac{2}{3} ca - 2c^2 = 0$$

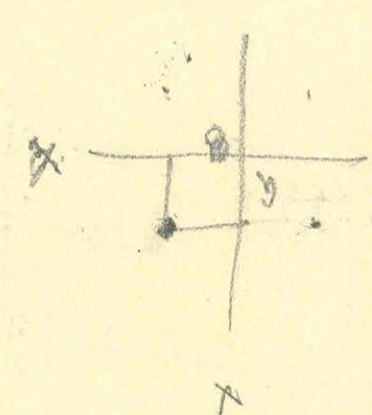
$$-2a^2 - 3ac + 4c^2 = 0$$

$$z = + \frac{1}{4}$$

$$y = 0$$

$$x = \frac{1}{4}$$

$$x = -1$$



$$2a^2 - b^2 - 6ac = 0$$

107,04

-	+	-
+	-	-
-	-	+
+	+	+

-0,098415

$$\frac{10404 \cdot 109995}{10404 \cdot 109995 - 10341}$$

$$\frac{1050173}{4104}$$

$$\frac{3 + 6b - 10a^2}{(10a^2)^2} = \frac{3 + 6b}{1}$$

$$a = 1, b = 1$$

$$\left\{ \begin{aligned} x &= \frac{3a^2 + 6ac - 7c^2}{M} \\ y &= \frac{3ab + 6bc}{M} \\ z &= \frac{3ac + 6a^2 - 7c^2}{M} \end{aligned} \right.$$

$$X = \frac{3a^2}{\sqrt{(1c^2 + a^2 + b^2)^2}} + \frac{6ac}{\sqrt{(1c^2 + a^2 + b^2)^2}} - \frac{1}{\sqrt{(1c^2 + a^2 + b^2)^2}}$$

10
y

$$\frac{-57 - 101}{(101)^{101}} = -\frac{158}{10201 \cdot 10,0499}$$

$$- 0,001541$$

63 - 101

6 - 202

$$-\frac{38}{102579}$$

$$- 0,000370$$

$$30 - 600 = 202$$

-772

-832

81

-1000

-1000

+600

-600

-

+202

-1000

+600

+600

+

+1900

-500

+1200

+1200

-

-200

-200

-1200

+1200

+

250000.22.0602/159015

0200

2002

+382

+452

-208

-208

+600

+600

-60

+60

0200

$$\frac{1922}{222} = 822$$

$$-212$$

$$-104$$

$$-104$$

$$+120$$

$$+12$$

$$+12$$

$$+$$

$$10876 \cdot 10,198 = 110301$$

$$x = \frac{15 \pm \sqrt{225 + 800}}{2}$$

$$x^2 - 15x - 200 = 0$$

$$2x^2 + 20x + 400 = 0$$

$$\frac{15}{25} = \frac{3}{5}$$

15830

0,2166

$$x = 15 \pm \sqrt{11}$$

$$\frac{424}{202} = 2,1$$

$$x = 15 \pm \sqrt{15 + 10}$$

$$x^2 - 20x - 50 = 0$$

$$2x^2 - 60x - 100 = 0$$

x=7

x^2 + 100 = 149

22201.12,2066
= 270999

+147	+147	-210	+210
-420	+420	+600	+600
-149	-149	-298	-298
-422	+418	+92	+572
-1557	+1542	+340	+1884

x=8

x^2 + 100 = 164

26896.12,8062
= 344426

+192	+192	-240	+240
-480	+480	+600	+600
-164	-164	-328	-328
-452	+508	+32	+572
-1312	+1475	+93	+1486

x=9 181

32761.12,4526

44075

+243	+243	-270	+270
-540	+540	+600	+600
-181	-181	-362	-362
-478	+602	+32	+598
1084	1366	-73	+1152

12

x^2 + 100 = 244

59536.15,6205

144
432

990901
929982

+432	+432	-360	+360
-720	+720	+600	+600
-244	-244	-488	-488
-522	+908	-248	+472
-571	+985	-267	+507
-577	+916	-250	

x=14

x^2 = 196

x^2 + 100 = 296

87616.17,2047

1,507407

+588	+588	-420	+420
-840	+840	+600	+600
-296	-296	-592	-592
-544	+1196	-412	+428
-561	+754	-273	+284

x=16

x^2 = 256

x^2 + 100 = 356

126736.18,868

2,391255

1316	664		
+768	+768	-480	+480
-960	+960	+600	+600
-356	-356	-712	-712
-548	+1372	-592	+368
-229	+572	-247	+154

MAOTAK
HUBOMÁNDIS AKADÉMIA
KÖNYVTÁRA

$$\frac{3m_1 m_2}{r_1} = 9.988$$

$$\frac{3m_1 m_2}{r_2} \left(1 + \frac{d}{r_2}\right) = 9.988$$

$$1579520000$$

$$\frac{526,5 \cdot 10^6}{r^2 = 1600}$$

$$r^2 = 2500$$

$$r^2 - r_1^2 = -900$$

$$r^6 = 4096 \cdot 10^6$$

$$r_1^6 = 15625 \cdot 10^6$$

$$\frac{3m_1 m_2}{r_1} \left(1 + \frac{d}{r_2}\right) = 9'$$

$$105250$$

$$350,5$$

$$d = 9 \frac{r^6}{3m_1 m_2} - r^2 = 9 \frac{r_1^6}{3m_1 m_2} - r_1^2$$

$$r^2 - r_1^2 = \frac{1}{3m_1 m_2} (9r^6 - 9r_1^6)$$

$$\frac{3125}{1250} = 2,5$$

$$\frac{15625}{1250} = 12,5$$

$$105216$$

$$350,7$$

$$104678$$

$$348,9$$

$$3m_1 m_2 = \frac{9r^6 - 9r_1^6}{r^2 - r_1^2}$$

$$a = \frac{2700}{10^6}$$

$$\frac{2700 m_1 m_2}{10^6} = 15625 \cdot 9' - 4096 \cdot 9$$

$$m_1 m_2 = 542,211 \cdot 10^6$$

$$m_1 m_3 = 363,127 \cdot 10^6$$

$$m_2 m_3 = 354,483 \cdot 10^6$$

$$\frac{m_1}{m_2} = 1,024385$$

$$555,4328 \cdot 10^6$$

$$\frac{m_1 = 23,568}{m_2 = 23,007}$$

$$m_3 = 15,408$$

$$a_{m_1 m_2} = 3,991406$$

$$a_{m_1 m_3} = 2,664063$$

$$a_{m_2 m_3} = 2,631875$$

$$\frac{23}{69} = \frac{2352}{529}$$

$$2351^2 = 55272$$

$$2356^2 = 555073$$

$$2357^2 = 555450$$

$$2358^2 = 555818$$

$$2359^2 = 556187$$

$$2360^2 = 556556$$

1899. január 16.

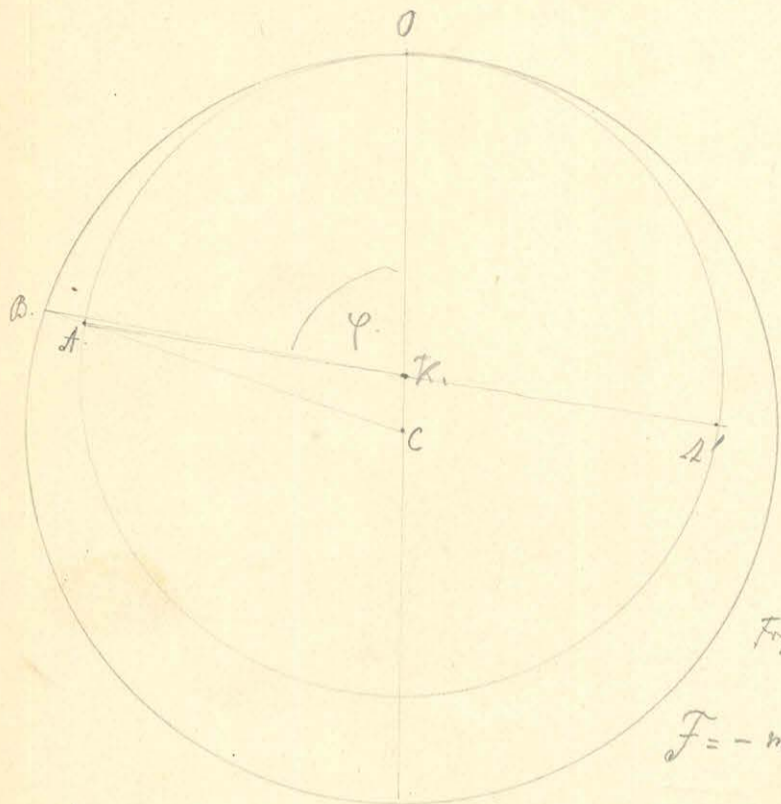
Egy téglás körűt szimmetrikus tömegelrendítésű és excentricitású való-

függőmomentum.

C a kör középpontjának középpontja

K a függő tengely középpontja

$$CK = \varepsilon$$



Működési pontok $A_j = -m \left(\frac{\partial V}{\partial r} \frac{\partial A_j}{\partial r} + \frac{\partial V}{\partial r^2} \frac{\partial A_j}{\partial r} \right)$

$$BA = 2\varepsilon \sin \frac{\varphi}{2} \quad +)$$

Működési pontok

$$A = \text{működési pontok } A_j = -m \frac{\partial V}{\partial r} 2\varepsilon \sin \frac{\varphi}{2} - m \frac{\partial^2 V}{\partial r^2} 2\varepsilon^2 \sin^2 \frac{\varphi}{2}$$

$$\text{Függőmomentum} = \frac{\partial A}{\partial \varphi} = -m \frac{\partial V}{\partial r} 4\varepsilon \sin \frac{\varphi}{2} \cos \frac{\varphi}{2} - m \frac{\partial^2 V}{\partial r^2} 8\varepsilon^2 \sin \frac{\varphi}{2} \cos \frac{\varphi}{2}$$

$$F = -m \frac{\partial V}{\partial r} 2\varepsilon \sin \varphi - m \frac{\partial^2 V}{\partial r^2} 4\varepsilon^2 \sin^2 \frac{\varphi}{2} \sin \varphi$$

Ha m tömeg az A és B pontokban van egyelően mértékűen elhelyezve.

az A-ban felelő $\frac{m}{2}$ tömegre $F_1 = -m \frac{\partial V}{\partial r} \varepsilon \sin \varphi - m \frac{\partial^2 V}{\partial r^2} 2\varepsilon^2 \sin^2 \frac{\varphi}{2} \sin \varphi$

az B-ben felelő $\frac{m}{2}$ tömegre $F_2 = +m \frac{\partial V}{\partial r} \varepsilon \sin \varphi + m \frac{\partial^2 V}{\partial r^2} 2\varepsilon^2 \cos^2 \frac{\varphi}{2} \sin \varphi$

és így

$$F = F_1 + F_2 = m \frac{\partial V}{\partial r} 2\varepsilon^2 (\cos^2 \frac{\varphi}{2} - \sin^2 \frac{\varphi}{2}) \sin \varphi = m \frac{\partial V}{\partial r} 2\varepsilon^2 \sin 2\varphi$$

MAGYAR
TUDOMÁNYOS AKADÉMIA
KÖNYVTÁRA

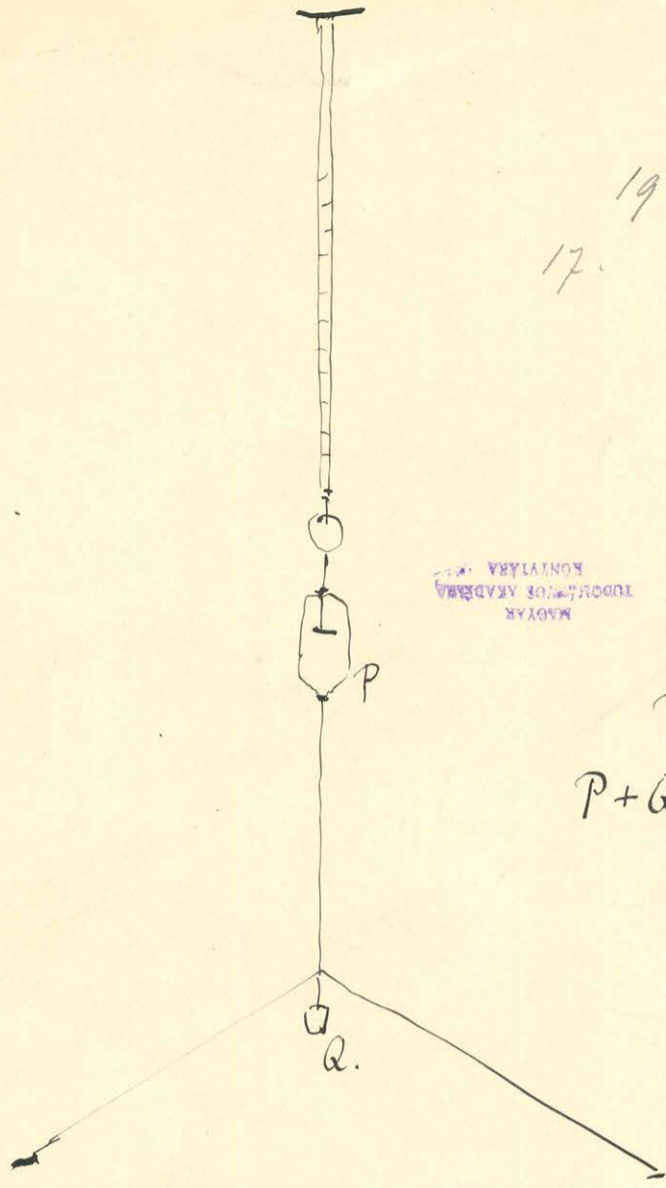
*) KBC háromszögben ha $KA = l$ $BC = r$ $AB = x$

$$x^2 = (l+x)^2 + \varepsilon^2 + 2(l+x)\varepsilon \cos \varphi$$

$$m \quad (l+\varepsilon)^2 = (l+x)^2 + \varepsilon^2 + 2(l+x)\varepsilon \cos \varphi$$

ahol ε és x mértékben mindig értékek ε^2 x^2 ε és x elhanyagolhatók

$$2l\varepsilon = 2lx + 2l\varepsilon \cos \varphi \quad x = BA = 2l \sin^2 \frac{\varphi}{2}$$



17. 19 24
 hum 3 24
 10
 17
 24

MAOTAK
 TUDOR-LUDOVIC AKADEMIA
 KONYVTAARA

~~P=Q~~
 $P-Q = 2F \sin \alpha$
 $P+Q + 2F \sin \alpha = C D$
 ~~$P=Q+2F$~~
 ~~$P=Q$~~

$P+Q + 2F \sin \alpha = C D$

$\frac{\partial h}{\partial x} \xi + \frac{\partial h}{\partial y} \eta$
 $\frac{\partial h}{\partial x} \xi + \frac{\partial h}{\partial y} \eta$
 $\frac{\partial h}{\partial x} \xi + \frac{\partial h}{\partial y} \eta$
 $\frac{\partial h}{\partial x} \xi + \frac{\partial h}{\partial y} \eta$
 $\frac{\partial h}{\partial x} \xi + \frac{\partial h}{\partial y} \eta$

$\frac{\partial h}{\partial x} \xi + \frac{\partial h}{\partial y} \eta = \frac{\partial h}{\partial x} \xi + \frac{\partial h}{\partial y} \eta$
 $\frac{\partial h}{\partial x} \xi + \frac{\partial h}{\partial y} \eta = \frac{\partial h}{\partial x} \xi + \frac{\partial h}{\partial y} \eta$
 $\frac{\partial h}{\partial x} \xi + \frac{\partial h}{\partial y} \eta = \frac{\partial h}{\partial x} \xi + \frac{\partial h}{\partial y} \eta$
 $\frac{\partial h}{\partial x} \xi + \frac{\partial h}{\partial y} \eta = \frac{\partial h}{\partial x} \xi + \frac{\partial h}{\partial y} \eta$
 $\frac{\partial h}{\partial x} \xi + \frac{\partial h}{\partial y} \eta = \frac{\partial h}{\partial x} \xi + \frac{\partial h}{\partial y} \eta$

8
 10000
 2
 1200
 0,3 0,6
 0,003
 0,0006



0,0008806

London

0,0895

Petersburg

Melbourne

0001411

Kairo

King George

328
142
470

Agulhas-Nees

Bruck

Arbatsh

Peking

Tokio

0,00022

0,0736

0,0872

0,00105

0,02100

347
22
19
269
50x
269
96c

0,0125

0,0872

131
848
717
126
591

0,001592

11 0,0020 / 0,001818

4848 = 175 x 8484

0,001926

0,00702

0,00446

0,00526 / 0,00200

0,00459 / 0,01746

515
266
245

0,01

2798

1596

2784

0,0006902

0,1602

0,00951

0,1506

0,02

18
18
36

$$5^6 = 0,0875$$

$$0,00437$$

$$/ 0,01746$$

$$4,3 / 0,0106 / 0,00230$$

$$0,00582$$

$$\begin{array}{r} 86 \\ 140 \\ 129 \\ 110 \end{array}$$

$$0,0775$$

$$/ 0,0000402$$

$$0,00004158$$

$$252$$

$$0,07245$$

$$9/870$$

$$/ 0,0097$$

$$3,2 / 0,01746 / 0,00546$$

$$\begin{array}{r} 160 \\ 146 \\ 128 \\ 81 \\ 180 \end{array} \quad \begin{array}{r} 528 \\ 855 \\ 509 \\ 29 \end{array}$$

$$17 / 0,0870 / 0,005140$$

MADYAR
INSTITUTE OF ARABIC
KONYIYARA

$$0,4 / 1 / 0,01 / 0,00294$$

$$\begin{array}{r} 64 \\ 2206 \\ 20 \\ 140 \end{array}$$

$$0,0007609$$

$$2536$$

$$6,5 / 0,020 / 0,00208$$

$$10,0 / 0$$

$$0,0079$$

$$0,00069$$

$$202$$

$$0,00215$$

$$0,0008470$$

$$\begin{array}{r} 335 \\ 142 \\ 466 \\ 282 \end{array}$$

$$0,0004656$$

$$233$$

$$\begin{array}{r} 389 \\ 279 \\ 110 \end{array}$$

$$0,00906$$

$$0,0001897$$

$$0,0426$$

$$0,2488$$

$$7 / 0,01 / 0,00143$$

$$\begin{array}{r} 1746 \\ 165 \\ 96 \\ 200 \end{array} / 525$$

$$\begin{array}{r} 263 \\ 252 \\ 625 \\ 529 \\ 584 \\ 140 \end{array}$$

$$668010$$

$$\begin{array}{r} 0,1772 \\ 520 \\ 427 \\ 92 \end{array}$$

$$0,0001163$$

$$0,01163$$

$$0,0349$$

$$0,01016$$

$$0,1478$$

$$19 / 0,0004552$$

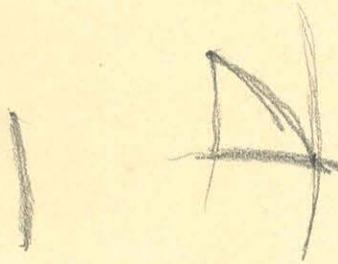
x, y, z

x, y az equator tik y nyugaton, z északra.
 y a z-hoz képest azonos x-től jobbra

$$L \sin \alpha - h \Delta \cos \beta = 0$$

~~$$L \sin \alpha - h \Delta \cos \beta = 0$$~~

$$L \sin \alpha - h \Delta \cos \beta = 0$$



$$z = r \sin \varphi$$

$$\alpha = \cos \varphi \cos \delta$$

$$\beta = \cos \varphi \sin \delta$$

$$\gamma = \sin \varphi$$

MAGYAR
 TUDOMÁNYOS AKADÉMIA
 KÖNYVTÁRA

$$\cos(\Sigma) = \cos \varphi \cos \delta \cdot \cos \varphi' \cos \delta' + \cos \varphi' \sin \delta \sin \varphi \cos \delta + \sin \varphi \sin \varphi'$$

$$r(\cos \varphi \cos \varphi' \cos \delta \delta' + \sin \varphi \sin \varphi')$$

$$r \cos \varphi (\cos \varphi - \delta \varphi) + \sin \varphi (\sin \varphi + \delta \varphi \cos \varphi)$$

$$\cos^2 \varphi + \sin \varphi \cos \varphi \delta \varphi + \sin^2 \varphi + \delta \varphi \sin \varphi \cos \varphi$$

$$1 - \frac{1}{2} \Sigma^2 = \cos \varphi (\cos \varphi - \cos \varphi \delta \varphi^2 - \sin \varphi \delta \varphi) (1 - \frac{1}{2} \delta \delta'^2) + \sin \varphi (\sin \varphi - \sin \varphi \delta \varphi^2 + \cos \varphi \delta \varphi)$$

$$= 1 - \frac{1}{2} \delta \varphi^2 + \frac{1}{2} \cos^2 \varphi \delta \delta'^2$$

$$\Sigma^2 = \delta^2 \varphi^2 + \cos^2 \varphi \delta \delta'^2$$

$$\frac{\partial X}{\partial y}$$

$$\frac{\partial y}{\partial x}$$

~~$x = r \delta \varphi$~~

$x = r \delta \varphi$

$y = r \cos \varphi \delta \varphi$

$y = r \sin \varphi \delta \varphi$

$X =$

$Y =$

$$\frac{\partial X}{\partial y} = \frac{\partial X}{\partial r} = \frac{1}{r \cos \varphi} \frac{\partial X}{\partial r}$$

$$\frac{\partial y}{\partial x} = \frac{1}{r} \frac{\partial y}{\partial \varphi}$$

~~$x = h \cos \delta$~~

~~$x = h \cos \delta$~~ $y = h \sin \delta$

$X =$

~~$X' = X \cos(X, X') + y \cos(y, X') + z \cos(z, X')$~~

~~$Y' = X \cos(X, Y') + y \cos(y, Y') +$~~

$X = X' \cos(X, X') + y' \cos(y', X') + z' \cos(z', X')$

$y = X' \cos(X, Y') + y' \cos(y, Y') + z' \cos(z, Y')$

~~$z = X' \cos(X, Z')$~~

$\cos(X, X') = 1$

$\cos(X, Y') = \sin \varphi \delta \varphi$

$\cos(X, Z') = -\delta \varphi$

$\cos(y, X') = -\sin \varphi \delta \varphi$

$\cos(y, Y') = 1$

$\cos(y, Z') = -\cos \varphi \delta \varphi$

$\cos(z, X') = \delta \varphi$

$\cos(z, Y') = +\cos \varphi \delta \varphi$

$\cos(z, Z') = 1$



$$\cos(x, X') = \cos \varphi = +\cos \varphi \quad \left. \begin{array}{l} + \\ - \\ + \end{array} \right\}$$

$$\cos(y, X') = -\sin \varphi \sin \delta = -\sin \varphi \sin \delta \quad \left. \begin{array}{l} + \\ - \\ + \end{array} \right\}$$

$$\cos(z, X') = \sin \varphi \cos \delta = +\sin \varphi \cos \delta \quad \left. \begin{array}{l} + \\ - \\ + \end{array} \right\}$$

$$\cos(x, Y) = 0 = 0 \quad \left. \begin{array}{l} 0 \\ + \\ - \end{array} \right\}$$

$$\cos(y, Y) = \cos \delta = +\cos \delta \quad \left. \begin{array}{l} 0 \\ + \\ - \end{array} \right\}$$

$$\cos(z, Y) = +\sin \delta = +\sin \delta \quad \left. \begin{array}{l} 0 \\ + \\ - \end{array} \right\}$$

$$\cos(x, Z) = -\sin \varphi = -\sin \varphi \quad \left. \begin{array}{l} + \\ - \\ + \end{array} \right\}$$

$$\cos(y, Z) = \cos \varphi \sin \delta = -\cos \varphi \sin \delta \quad \left. \begin{array}{l} + \\ - \\ + \end{array} \right\}$$

$$\cos(z, Z) = \cos \varphi \cos \delta = +\cos \varphi \cos \delta \quad \left. \begin{array}{l} + \\ - \\ + \end{array} \right\}$$

$$\begin{aligned} \cos(X, X') &= \cos \varphi \cos \varphi' + \sin \varphi \sin \varphi' \sin \delta \cos \delta' + \sin \varphi \sin \varphi' \cos \delta \cos \delta' \\ &= \cos \varphi (\cos \varphi' - \delta \varphi' \sin \varphi) + \sin \varphi (\sin \varphi' + \cos \varphi' \delta \varphi') [\sin \delta (\sin \delta' + \cos \delta' \delta \varphi') \\ &\quad + \cos \delta (\cos \delta' - \sin \delta' \delta \varphi')] \\ &= \cos^2 \varphi - \cos \varphi \sin \varphi' \delta \varphi' + \sin^2 \varphi \\ &= 1 \end{aligned}$$

$$\begin{aligned} \cos(X, Y') &= \cos \delta \sin \varphi' \sin \delta' + \sin \delta \sin \varphi' \cos \delta' \\ &= \sin \varphi' (\sin \delta \sin \delta' + \cos \delta \cos \delta') \end{aligned}$$

$$\cos(X, Z') = \sin \varphi \sin \delta \cos \delta' + \sin \varphi \cos \delta \sin \delta' = \sin \varphi (\sin \delta \cos \delta' + \cos \delta \sin \delta')$$

MAOTAR
TUDONGAN OF AKADEMIKA
KONIVARA

$$\frac{\sin \varphi \sin \delta}{\sin \varphi \sin \delta}$$

$$\cos(Z, X') = -\sin \varphi \cos \varphi' + \cos \varphi \sin \lambda \sin \varphi' \sin \lambda' + \cos \varphi \cos \lambda \sin \varphi' \cos \lambda'$$

$$\cos(Z, Y') = \cancel{-\sin \varphi \cos \lambda' + \cos \varphi \sin \lambda \sin \lambda'} = -\cos \varphi \sin \lambda \cos \lambda' + \cos \varphi \cos \lambda \sin \lambda'$$

$$\cos(Z, Z') = \sin \varphi \sin \varphi' + \cos \varphi \sin \lambda \cos \varphi' \sin \lambda' + \cos \varphi \cos \lambda \cos \varphi' \cos \lambda'$$

$$\cos(Z, X') = -\sin \varphi (\cos \varphi - \sin \varphi \delta \varphi) + \cos \varphi \sin \lambda [\sin \varphi + \delta \varphi \cos \varphi] \left\{ \begin{array}{l} \sin \lambda (\sin \lambda + \delta \lambda \cos \lambda) \\ + \cos \lambda (\cos \lambda - \delta \lambda \sin \lambda) \end{array} \right\}$$

$$\cos(Z, X') = -\sin \varphi \cos \varphi + \sin^2 \varphi \delta \varphi + \cos \varphi \sin \varphi + \cos^2 \varphi \delta \varphi = \delta \varphi$$

$$-\sin \varphi (\cos \lambda + \delta \lambda \sin \lambda) + \cos \varphi \sin \lambda (\sin \lambda + \delta \lambda \cos \lambda)$$

$$-\cos \varphi \cos \lambda + \delta \lambda \sin \lambda \cos \varphi + \cos \varphi \sin^2 \lambda + \cos \varphi \sin \lambda \cos \lambda \delta \lambda$$

$$-\cos \varphi \cos \lambda - \cos \varphi (\sin \lambda (\cos \lambda - \delta \lambda \sin \lambda) - \cos \lambda (\sin \lambda + \delta \lambda \cos \lambda))$$

$$\cos(Z, Y') = +\cos \varphi \delta \lambda$$

$$\cos(Z, Z') = \sin \varphi (\sin \varphi + \delta \varphi \cos \varphi) + \cos \varphi \sin \lambda (\cos \varphi - \delta \varphi \sin \varphi) (\sin \lambda + \delta \lambda \cos \lambda) + \cos \varphi \cos \lambda (\cos \varphi - \delta \varphi \sin \varphi) (\cos \lambda - \delta \lambda \sin \lambda)$$

$$\sin^2 \varphi (\cos \varphi + \delta \varphi \sin \varphi) + \cos \varphi \sin \lambda (\cos \varphi \sin \lambda + \cos \varphi \cos \lambda \delta \lambda - \sin \varphi \sin \lambda \delta \varphi) + \cos \varphi \cos \lambda (\cos \varphi \cos \lambda - \cos \varphi \sin \lambda \delta \lambda - \sin \varphi \cos \lambda \delta \varphi)$$

$$\sin^2 \varphi + \sin \varphi \cos \varphi \delta \varphi \quad \cos^2 \varphi - \sin \varphi \cos \varphi \delta \varphi$$

$$\cos Z, Z' = 1$$

$$z' = h \sin \delta \quad x' = h \cos \delta \quad y' = h \sin \delta$$

~~$$z = z' \cos(\delta, \delta')$$~~

$$z = x' \cos(\delta, x') + y' \cos(\delta, y') + z' \cos(\delta, z')$$

$$z = h \cos \delta \cdot \delta \varphi + h \sin \delta \cos \varphi \delta \lambda + h \sin \delta$$

$$\frac{\partial z}{\partial \delta} = \frac{\partial h}{\partial \delta} \sin \delta + \frac{h}{\cos \delta} \frac{\partial \delta}{\partial \delta}$$

$$\frac{\partial z}{\partial \varphi} = h \cos \delta + \frac{\partial h}{\partial \varphi} \sin \delta + \frac{h}{\cos \delta} \frac{\partial \delta}{\partial \varphi} \quad \left| \quad \frac{\partial x}{\partial \delta} = \cos \delta \frac{\partial h}{\partial \delta} - h \sin \delta \frac{\partial \delta}{\partial \delta} \right.$$

$$\frac{\partial z}{\partial \lambda} = h \sin \delta \cos \varphi + \frac{\partial h}{\partial \lambda} \sin \delta + \frac{h}{\cos \delta} \frac{\partial \delta}{\partial \lambda} \quad \left| \quad \frac{\partial y}{\partial \delta} = \sin \delta \frac{\partial h}{\partial \delta} + h \cos \delta \frac{\partial \delta}{\partial \delta} \right.$$

~~4/20/20~~

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$$\frac{\partial z}{\partial x} = \frac{h}{r} \cos \delta + \frac{\partial h}{\partial x} \frac{\sin \delta}{r} + \frac{h}{r \cos \delta} \frac{\partial \delta}{\partial x} \quad \left| \quad \frac{\partial x}{\partial \delta} = \right.$$

$$\frac{\partial z}{\partial y} = \frac{h}{r} \sin \delta + \frac{\partial h}{\partial y} \frac{\sin \delta}{r} + \frac{h}{r \cos \delta} \frac{\partial \delta}{\partial y} \quad \left| \quad \frac{\partial y}{\partial \delta} = \right.$$

$$\sin \delta \frac{\partial h}{\partial \delta} \frac{\sin \delta}{r} + \sin \delta \frac{h}{r \cos \delta} \frac{\partial \delta}{\partial \delta} = \cos \delta \frac{\partial h}{\partial \delta} + \frac{h}{r \sin \delta} \frac{\partial \delta}{\partial \delta}$$

$$x^2 + y^2 = 1$$

~~$$x = r \cos \delta$$~~

$$\frac{\partial x}{\partial \delta} = -r \sin \delta$$

$$\frac{\partial i}{\partial z} = -\frac{h}{h} \cos(\alpha - \delta) - \Delta \cos^i \sin(\beta - \delta) - 3 t y i \cos(\gamma - \delta) + \frac{\cos^i}{r} (\cos \delta t y \varphi + t y i)$$

$$\frac{\partial x}{\partial x} = h \cos \alpha \cos \delta - \Delta h \cos \beta \sin \delta - \frac{h}{r} t y i$$

$$\frac{\partial y}{\partial y} = h \sin \alpha \sin \delta + \Delta h \sin \beta \cos \delta - \frac{h}{r} (\cos \delta t y \varphi + t y i)$$

$$\frac{\partial x}{\partial x} + \frac{\partial y}{\partial y} = h \cos(\alpha - \delta) + \Delta h \sin(\beta - \delta) - \frac{h}{r} (\cos \delta t y \varphi + 2 t y i)$$

$$\frac{\partial i}{\partial z} = \frac{\cos^i}{h} \left[-h \cos(\alpha - \delta) + \Delta h \sin(\beta - \delta) + \frac{h}{r} (\cos \delta t y \varphi + 2 t y i) - h t y i \cos(\alpha - \delta) - \frac{h t y i}{\cos^i} \gamma \cos(\gamma - \delta) + \frac{h}{r} t y i \right]$$

$$\frac{\partial i}{\partial z} = -\frac{h}{h} \cos(\alpha - \delta) - \Delta \cos^i \sin(\beta - \delta) - 3 t y i \cos(\gamma - \delta) + \frac{\cos^i}{r} (\cos \delta t y \varphi + t y i)$$

$$h t y i \cos \alpha + \frac{h \gamma}{\cos^i} \cos \gamma + \frac{h}{r} \cos \delta$$

$$\frac{h}{\cos^i} - \frac{t y i}{\cos^i}$$

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$$t y i' = \frac{1}{\cos^i}$$

$$h t y i \sin \alpha + \frac{h \gamma}{\cos^i} \sin \gamma + \frac{h}{r} \sin \delta \quad \frac{\sin \delta - 1}{\cos^i}$$

$$h \cos \alpha t y i + \frac{h}{\cos^i} \gamma \cos \gamma + \frac{h}{r} \cos \delta$$

$$h \sin \alpha t y i + \frac{h}{\cos^i} \gamma \sin \gamma + \frac{h}{r} \sin \delta$$

$$-h \cos(\alpha - \delta) + \frac{h}{r} t y i + \frac{h}{r} \cos(\cos \delta t y \varphi + 2 t y i)$$

$$-h \cos(\alpha - \delta) + \frac{h}{r} (\cos \delta t y \varphi + 2 t y i)$$

$$\frac{\partial h}{\partial z} \cos \delta - h \frac{\partial \delta}{\partial z} \sin \delta = \frac{\partial z}{\partial x}$$

$$\frac{\partial h}{\partial z} \sin \delta + h \frac{\partial \delta}{\partial z} \cos \delta = \frac{\partial z}{\partial y}$$

$$\frac{\partial h}{\partial z} = \frac{\partial z}{\partial x} \cos \delta + \frac{\partial z}{\partial y} \sin \delta$$

$$h \frac{\partial \delta}{\partial z} = \frac{\partial z}{\partial y} \cos \delta - \frac{\partial z}{\partial x} \sin \delta$$

$$\frac{\partial h}{\partial z} = \operatorname{tgi} \left(\frac{\partial h}{\partial x} \cos \delta + \frac{\partial h}{\partial y} \sin \delta \right) + \frac{h}{\cos i} \left(\frac{\partial i}{\partial x} \cos \delta + \frac{\partial i}{\partial y} \sin \delta \right) + \frac{h}{r}$$

$$h \frac{\partial \delta}{\partial z} = \operatorname{tgi} \left(\frac{\partial h}{\partial y} \cos \delta - \frac{\partial h}{\partial x} \sin \delta \right) + \frac{h}{\cos i} \left(\frac{\partial i}{\partial y} \cos \delta - \frac{\partial i}{\partial x} \sin \delta \right)$$

$$\frac{\partial i}{\partial z} = \frac{\cos i}{h} \left[-\frac{\partial h}{\partial x} \cos \delta + h \frac{\partial \delta}{\partial x} \sin \delta - \frac{\partial h}{\partial y} \sin \delta - h \frac{\partial \delta}{\partial y} \cos \delta + \frac{h}{r} (\cos \delta \operatorname{tgi} \varphi + 2 \operatorname{tgi} i) \right]$$

$$- \operatorname{tgi} \left(\frac{\partial h}{\partial x} \cos \delta + \frac{\partial h}{\partial y} \sin \delta \right) + \frac{h \operatorname{tgi}}{\cos i} \left(\frac{\partial i}{\partial x} \cos \delta + \frac{\partial i}{\partial y} \sin \delta \right) - \frac{h \operatorname{tgi} i}{r}$$

$$\frac{\partial h}{\partial x} \Delta \cos \alpha \quad \frac{\partial h}{\partial y}$$

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$$\frac{\partial h}{\partial z} = \operatorname{tgi} \Delta \cos(\alpha - \delta) + \frac{h}{\cos i} \Delta \cos(\gamma - \delta) + \frac{h}{r}$$

$$h \frac{\partial \delta}{\partial z} = \operatorname{tgi} \Delta \sin(\alpha - \delta) + \frac{h}{\cos i} \Delta \sin(\gamma - \delta)$$

$$\frac{\partial i}{\partial z} = \frac{\cos i}{h} \left[-\Delta \cos(\alpha - \delta) - \Delta \cos(\gamma - \delta) - h \Delta \sin(\alpha - \delta) \right]$$

$$- \operatorname{tgi} \left(\Delta \cos(\alpha - \delta) - \frac{h \operatorname{tgi}}{\cos i} \Delta \cos(\gamma - \delta) + \frac{h}{r} (\cos \delta \operatorname{tgi} \varphi + \operatorname{tgi} i) \right)$$

$$\sqrt{\frac{r}{r-2}} - \sqrt{\frac{r}{r+2}}$$

4/20/4

1,804
0,005412

$-0,005229 + 0,005230 + 0,01057 =$
 $0,005250$
 $+0,004542 + 0,000938 + 0,00158 =$
 $-0,000957$
 158
 499

7,5 / 0,0116 / 116

7,22
75
480

0,0116.

0,005230

0,00746

0,0158 0,015-82
0,000015 533
00156
0,01049

0,0116
222

0,002436

457.

$\frac{\pi \cos \varphi}{18 a}$

0,0158 $\cos \varphi$

0,000938

$$\frac{P_x}{m} = 0,002967 - 0,000038 - 0,03947 = -0,03654$$

Handwritten $\frac{P_y}{m} = 0,000443 + 0,000255 - 0,00956 = -0,00886$

$\frac{255}{698}$
 $\frac{70}{886}$

$$\frac{989}{2967}$$

$$\frac{1478}{4434}$$

$$\frac{0,1478}{2956} = 0,03104$$

$$\frac{0,03104}{0,000258} = 120,31$$

0,02184

~~0,907~~

$$\begin{array}{r} 1,804 \\ 1,7860 \\ 0,0238 \\ \hline 1,7622 \end{array}$$

MAOTAK JUDOKA OF ARABIA KONTAKA

$$\begin{array}{r} 1,0913 \\ 1,0800 \\ 1,804 \\ \hline 2,884 \end{array}$$

$$\frac{0,03947}{0,02951} = 1,337$$

$$\frac{1,337}{0,03654} = 36,6$$

elms 1,7622

randy m 0,4268

$$\frac{0,01067}{2134} = 0,0005$$

$$\frac{0,0005}{0,0224} = 0,0223$$

j

$$\frac{\partial X}{\partial z} = f' \cdot h \cdot k \cdot \left[\frac{c}{n + \sqrt{n^2 + c^2}} \left(\frac{c}{c \sqrt{n^2 + c^2}} - \frac{n + \sqrt{n^2 + c^2}}{c^2} \right) \right]$$

$$- \frac{\sqrt{n^2 + c^2}}{n + \sqrt{n^2 + c^2}} \left(\frac{c}{\sqrt{n^2 + c^2} \cdot \sqrt{n^2 + c^2}} - \frac{(n + \sqrt{n^2 + c^2}) \cdot c}{(n^2 + c^2)^{\frac{3}{2}}} \right)$$

Prüfungsausschuss

$$\frac{\partial X}{\partial z} = f' \cdot h \cdot k \cdot \left[\frac{c}{\sqrt{n^2 + c^2} (n + \sqrt{n^2 + c^2})} - \frac{c}{\sqrt{n^2 + c^2} (n + \sqrt{n^2 + c^2})} - \frac{n^2}{c(n^2 + c^2)} \right]$$

1/11 0002
 105.2000
 0,018 · 1,8
 15 m

81010
 92c
 6
 4
 150
 244

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141
 512

$$\frac{15 m}{0027} - \frac{1}{c} + \frac{c}{n^2 + c^2}$$

$$- \frac{n^2}{c(n^2 + c^2)}$$

0,24075
 21552
 0,025230

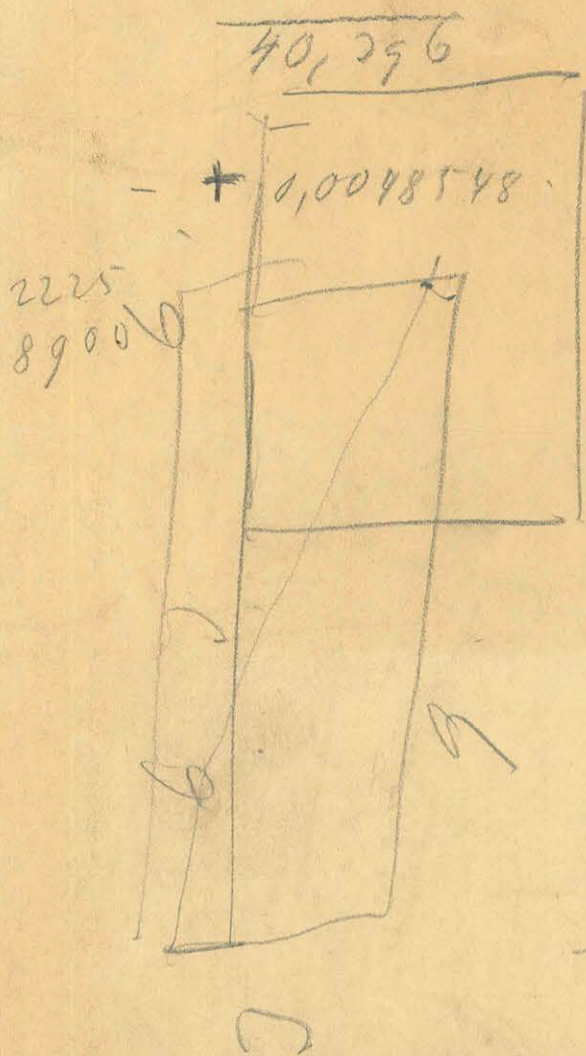
$$\sqrt{n^2 + c^2} = 5$$

$$1 + \frac{1}{n^2 + c^2} = 1,1803$$

158,540

$$\sqrt{h^2 + c^2} = 416 \quad 2,019090 \quad 1,309547 \quad \left| \begin{array}{l} 20,396 \\ 57,225 \end{array} \right.$$

$$\sqrt{h^2 + h^2 + c^2} = 2625 \quad 2,419129 \quad 1,709565$$



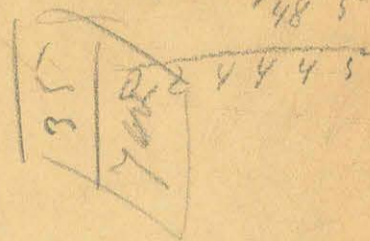
$$823,92$$

$$3649, \quad - 0,0010961$$

$$- 0,24820$$

$$0,24930$$

$$485$$



$$\frac{180}{15m}$$

$$1,25$$

$$\frac{90}{700} \quad \frac{1}{20}$$

$$\frac{1,8 \cdot 0,24445}{15m}$$

$$\frac{50}{15m} \cdot 2000$$

$$\frac{1}{150}$$

$$2234 \quad 3,49080 \quad 1,74542$$

$$3,349080 \quad 1,674542$$

$$+ 0,10000$$

$$- 0,0016856$$

$$24820$$

$$2375,8$$

$$0,24988$$

$$2225$$

$$8900$$

MAJLIS
ADUNIAH ORANG-ORANG
KUNYITARA

$$h^2 = 100$$

$$h^2 = 400$$

$$c^2 = 16$$

$$\sqrt{h^2 + c^2} = 20,3960$$

$$\sqrt{h^2 + h^2 + c^2} = 22,7156$$

$$823,92$$

$$+ 0,0048548$$

$$- 0,0041223$$

$$21552$$

$$- 0,21964$$

$$485$$

$$21479$$

Törzs 132° hossza 280 m átlag

Jan 4. 8 h

55 m 40

481,4 telj. 2 körös?

9 h, 4 m 20

↓
126,0 n. körös

Törzs 132° hossza 280 m átlag

9 h. 10 m 442 x

Törzs 132°

↓ } 335

9 h 21 m 20 307,2 x } 53,0
34 m 0 360,2 x }
45 m 20 244,1 x } 16,1

összesen 350 körös

Törzs 1320

9 h. 54 m

352 x

2 körös

10 h 4 m 16

138 m n. körös

Törzs 132° 30'

hossza 280 m átlag

2 körös

hossza 280 m átlag

Törzs 132° 40'

11 h 11 m

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TUDOMÁNYOS AKADÉMIA
KÖNYVTÁRA

348,2 x körös

11 h. 23 m

325,4 x körös

d = 704

hossza = 709

e = 704

hossza = 1009

c = 708

átlag = 905

k = 706

ny. körös = 705

e. körös = 708

11 h. 25 m

341,5

l = 800

összesen 2 körös

11 h 40 m

328,0

12 h 14

324,0

2 körös 1304 átlag 1105

12 h 30 m

329,0

2 körös 1304 átlag 1104

1 h 7 m

339,8

l = 800 körös

d 716

hossza 802

1 h 45

342,0

l = 800 körös

e 717

hossza 1603

c 810

átlag 1106

k 718

ny. körös 802

e. körös 801

$$t_1 t_1 + \dots + t_n t_n = p_1 \pi_1 + \dots + p_6 \pi_6 + \frac{1}{2} 2R + \frac{1}{2} 4R$$

$$h'' = t_1 + t_2 + \dots$$

$$p_1 = \dots$$

$$p_2 = \dots$$

$$\vdots$$

$$p_6 = \dots$$

$$h' = \dots$$

$$\left. \begin{array}{l} p_1 = \dots \\ p_2 = \dots \\ \vdots \\ p_6 = \dots \\ \dots \end{array} \right\}$$

$$-p_1 \pi_1 + \dots + p_6 \pi_6 - (p_1 \pi_1 + \dots + p_6 \pi_6) = 2R h' + 4R h'' - 2R h' - 4R h''$$

KONGRES
 MUDJALAKSANA
 MANDARIN

1, 2	1, 4	1, 6	1, 8	2	2, 5	3	4
0,130792 1,135590 <u>0,95202-2</u>	0,175425 1,64955 <u>0,10480-1</u>	1,00817 1,93004 <u>0,07813-1</u>	1,19268 2,19576 <u>0,99792-2</u>	1,34242 2,44636 <u>0,89606-2</u>	1,62810 3,01119 <u>0,61694-2</u>	1,88047 2,50000 <u>0,38047-2</u>	2,17077 4,30661 <u>0,86716-3</u>
0,91254 1,135590 <u>0,55664-1</u>	1,05652 1,64955 <u>0,40697-1</u>	1,17026 1,93004 <u>0,24022-1</u>	1,26264 2,19576 <u>0,06788-1</u>	1,34242 2,44636 <u>0,89606-2</u>	1,49442 3,01119 <u>0,48024-2</u>	1,66219 2,50000 <u>0,16219-2</u>	1,72591 4,30661 <u>0,41920-2</u>
1,06145 1,135590 <u>0,70555-1</u>	1,11793 1,64955 <u>0,46828-1</u>	1,15564 1,93004 <u>0,22560-1</u>	1,17522 2,19576 <u>0,97946-2</u>	1,17609 2,44636 <u>0,72973-2</u>	1,06521 3,01119 <u>0,05402-2</u>	0,50102 3,50000 <u>0,80103-4</u>	1,62941 4,30661 <u>0,22280-3</u>
0,278 0,20060 1,135590 <u>0,94470-2</u>	0,74570-1 1,64955 <u>0,09615-2</u>	0,62024 1,93004 <u>0,69020-2</u>	0,95182 2,19576 <u>0,75606-2</u>	1,17609 2,44636 <u>0,72973-2</u>	1,56074 3,01119 <u>0,54955-2</u>	1,82251 2,50000 <u>0,22251-2</u>	2,22686 4,30661 <u>0,92025-3</u>
290,00 2414 <u>2656</u>	2,42423 4,95243 <u>0,47180-3</u>	1,74506 4,95243 <u>0,79263-4</u>	2,12057 4,95243 <u>0,16844-3</u>	2,51851 4,95243 <u>0,56608-3</u>			
185 1294 <u>556</u>							
276 144 <u>132</u>							
275 45 <u>320</u>							

2

$$\frac{1}{2}(\delta - \delta_1) = \frac{\frac{1}{h} \frac{\partial h}{\partial y}}{\frac{\partial \delta}{\partial y} - c \sin \delta}$$

~~$$\frac{1}{2}(\delta - \delta_1) = \frac{\frac{1}{h} \frac{\partial h}{\partial y}}{\frac{\partial \delta}{\partial y} - c \sin \delta}$$~~

$$-c \Delta \sin(\beta - \delta) \sin \delta + c \Delta \cos(\beta - \delta) \cos \delta$$

$$\frac{1}{2}(\delta - \delta_1) = -\frac{\frac{\partial \delta}{\partial x} - c \sin \delta}{\frac{1}{h} \frac{\partial h}{\partial x}}$$

4

$$\frac{1}{2c} \frac{\partial h}{\partial x} \frac{\partial h}{\partial y} = -\left(\frac{\partial \delta}{\partial y} - c \sin \delta\right) \left(\frac{\partial \delta}{\partial x} - c \sin \delta\right)$$

$$-\left(\frac{H}{h}\right)^2 \frac{1}{c} \sin 2(\delta - \alpha) = -\frac{\partial \delta}{\partial y} \frac{\partial \delta}{\partial x} - c^2 \sin \delta \cos \delta + c \frac{\partial \delta}{\partial y} \sin \delta + c \frac{\partial \delta}{\partial x} \cos \delta$$

$$= \Delta^2 \sin 2(\delta - \beta) - c^2 \sin \delta \cos \delta + c \Delta \cos \beta$$

$$\left(\frac{H}{h}\right)^2 \sin 2\delta \cos \alpha - \left(\frac{H}{h}\right)^2 \cos 2\delta \sin \alpha + \Delta^2 \sin 2\delta \cos \alpha - \frac{H^2}{h^2} \cos 2\delta \sin 2\alpha = 0$$

$$\left(\frac{dH}{h}\right)^2 \cos 2\alpha + \Delta^2 \cos 2\alpha \sin 2\delta = \frac{dH^2}{h^2}$$

$$\Delta^2 \sin 2(\delta - \beta) + \left(\frac{H}{h}\right)^2 \sin 2(\delta - \alpha) - c^2 \sin 2\delta = c \Delta \cos \beta$$

$$\Delta \cos(\beta - \delta) = \frac{H}{h} \sin(\alpha - \delta) + c \sin \delta$$

$$\Delta \cos \beta \cos \delta + \Delta \sin \beta \sin \delta$$

$\frac{\partial \delta}{\partial x}$

$\frac{\partial \delta}{\partial y}$



0,19370

0,20565

0,27572

0,31368

0,34948

0,40017

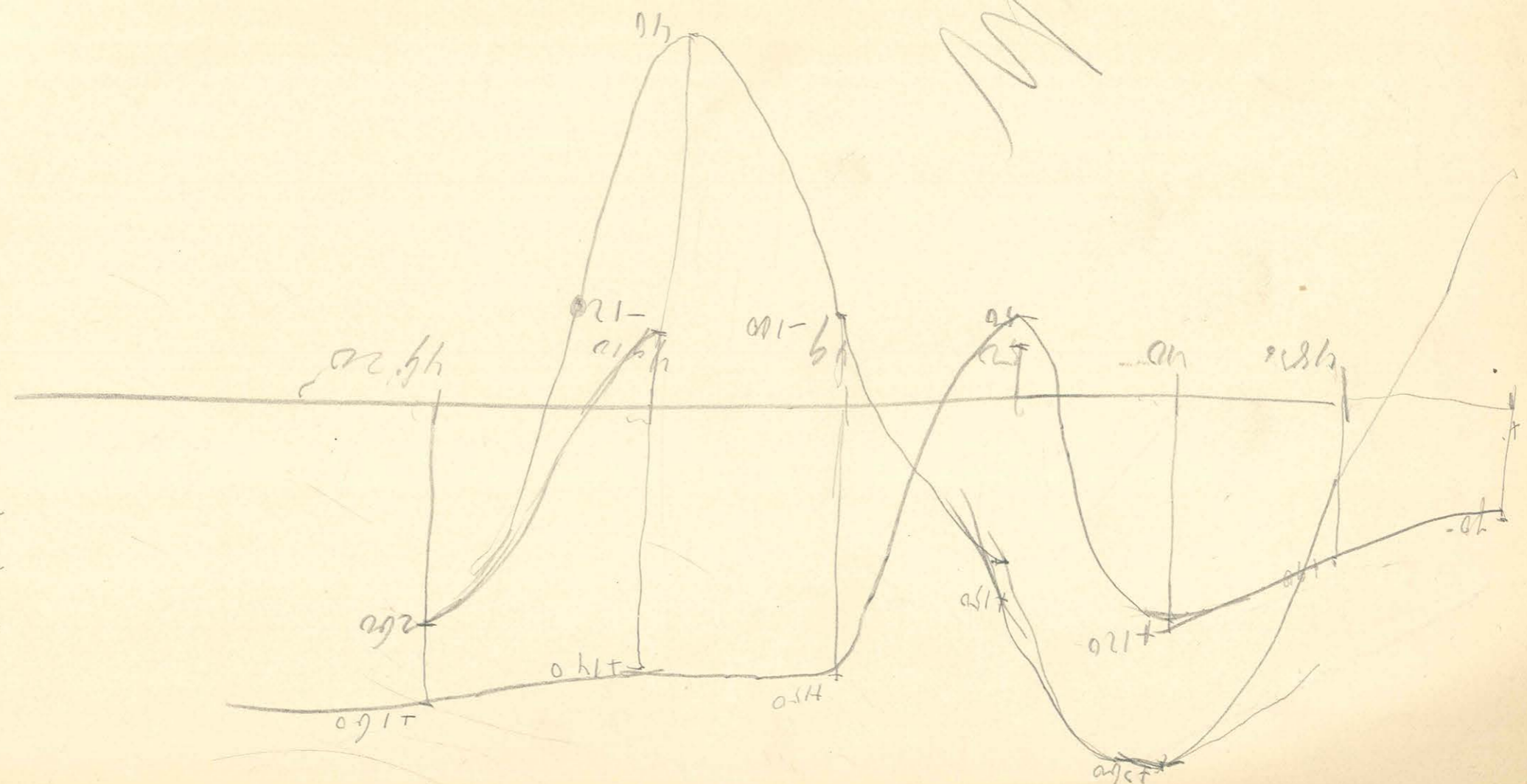
0,50000

0,61523

2

M

4	
04	
150	04
45	10 -
30	24 -
30	21 -
16	2 +
16	7
16	20
18	46



$$M_x = Mh \quad M_y = 0 \quad M_z = Mv \quad r^2 = a^2 + c^2$$

$$S = + \frac{3aMh + 9cMv}{r^5} - \frac{15c^2aMh + 15c^3Mv}{r^7}$$

$$S = \frac{Mh}{r^7} \left\{ \frac{3a^3}{c^2} + \frac{9ac^2}{c^2} + \frac{9a^2ct_i}{c^2} + \frac{9a^3t_i}{c^2} - \frac{15c^2a}{c^2} - \frac{15c^3t_i}{c^2} \right\}$$

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

$$S = \frac{Mh}{c^4} \frac{1}{\left(\sqrt{1 + \frac{a^2}{c^2}} \right)^7} \left\{ 3 \frac{a^3}{c^2} + 9t_i \frac{a^2}{c^2} - 12 \frac{a}{c} - 6t_i \right\}$$

$$\frac{\partial Z}{\partial x} = - \frac{Mh}{c^4} \frac{1}{\left(\sqrt{1 + \frac{a^2}{c^2}} \right)^7} \left\{ \frac{3a^2}{c^2} + 3 + 3t_i \frac{a^2}{c^2} + 3t_i \frac{a}{c} - 15 \frac{a^2}{c^2} - 15t_i \frac{a}{c} \right\}$$

$$\frac{\partial Z}{\partial x} = - \frac{Mh}{c^4} \frac{1}{\left(\sqrt{1 + \frac{a^2}{c^2}} \right)^7} \left\{ 3t_i \frac{a^2}{c^2} - 12 \frac{a^2}{c^2} - 12t_i \frac{a}{c} + 3 \right\}$$

$$t_i = i = 2/2$$

24
 50
 22
 0
 21
 330
 040

$$\frac{1}{h} \frac{dZ}{dx} = \frac{11}{7} \cos \alpha t_i + \frac{1}{7} \sin \alpha t_i$$

$$\frac{\partial Z}{\partial x} = \frac{1}{h} \frac{dZ}{dx} + \frac{1}{h} \frac{dZ}{dt_i}$$

Z = h t_i

12
 23
 0
 15
 18
 25
 50
 5
 10
 15
 20

	20	40	0	50	-40	-20	15	0	45	50
Δ	2,42297	2,41664	2,52782	2,46240	2,22222	2,20682	2,04522	2,08626	2,12057	2,12057
$\cos(p-d)$	0,59188	0,60921	0,62595	0,23967	0,71880-2	0,24186-2	0,08589	0,51264	0,69897	0,72421
$\Delta \cos(p-d)$	2,02485	2,02595	2,16377	1,70207	1,04102	0,44869	1,13121	1,59900	1,81954	1,84478
$\Delta \cos(p-d)$	+ 106	+ 106	+ 146	+ 150	- 11	- 23	+ 14	+ 40	+ 66	+ 70
Δ	2,42297	2,41664	2,53782	2,46240	2,32222	2,20682	2,04522	2,08626	2,12057	2,12057
$\sin(p-d)$	0,96403	0,96073	0,95728	0,99225	0,99940	0,99992	0,99675	0,97567	0,92752	0,92842
$\Delta \sin(p-d)$	2,39700	2,37737	2,49510	2,45575	2,32162	2,20676	2,04207	2,06203	2,05810	2,04899
$\Delta \sin(p-d)$	+ 250	+ 238	+ 313	+ 286	+ 210	+ 161	+ 110	+ 115	+ 114	+ 112

2
1

$$\frac{L}{n} \cos \alpha \cdot h_i^2 + \frac{L}{n} \cos \alpha \cdot h_i$$

$$\frac{L}{n} h_i^2 \left(\frac{1}{\cos \alpha} - \frac{L}{n} h_i \right) \cos \alpha$$

$$\left(1 - \frac{1}{2} \frac{L}{n} \sin^2 \alpha \right) \cos \alpha \cdot h_i^2$$

$$\left(1 - \frac{3}{8} \frac{L}{n} \right) \cos \alpha \cdot h_i^3$$

7,5	37,5
25	125
49	245

		+ 10	2
25	125	+ 35	7
50	250	+ 160	32
77	285	+ 240	48

- 60 12

- 120 24

- 220 64

2,	10
7	35
22	160
48	240

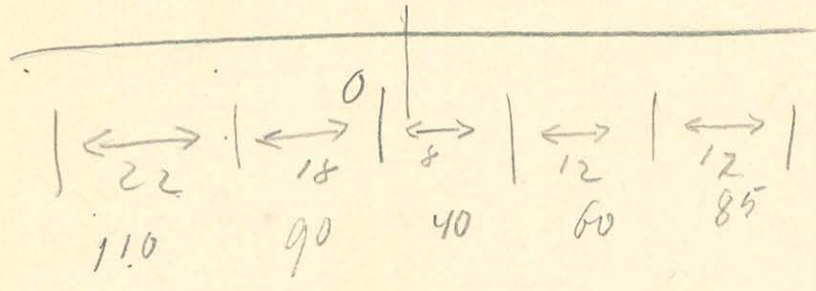
12	60
24	120
64,5	222,5

[Faint scribbled text]

$30 \leftarrow$ | $26 \leftarrow$ | 0 | 16
 150 130 80

98 190
 26 130
 17 85

| 405



МАДЯН
 ТУРКМЕНИСТАН АКАДЕМИЯСЫ
 КӨПЧӨЛӨС

0 20 26 42 55 67
 0 100 210 265 335

180

0	42° 20'	-	0,9490	1,94
25	52° 20'	-	1,3574	1,94
50	27° 20'	-	0,7670	1,92
75	20°	-	0,5774	1,92
100	24°	-	0,4452	1,92
150	20°	-	0,2640	1,92
200	23	-	0,4245	1,92
250	25	-	0,7002	1,91

550 28 24° 40
52 20° 44

194/9490 / 489

776
1730 194 / 1,3574 / 697
1552 1164
1780 1874
1280 1746

192/7670 / 397
5790
1880
1737
1460

192/2640 / 190 192/5774 / 299
192 286
1720 1914
1728 1737
1770

-25	21° 20'	-	6184	1,94
50	22	-	6284	1,95
100	-42°	-	9004	1,95
150	-27,20'	-	4254	1,95
200	-10° 20'	-	1854	2,96
250	-9°	-	1584	1,96
300	-10°	-	1764	1,96

194/6228 / 316
582
208
194
1140

192/4245 / 221
192 284
1728 405
1728 284
210/191/7002 / 266
5790 612
1272 576
1146 260
1260

195/6249 / 220
585
299
290
290

196/1584 / 196
1204
1170
240
448
290
085

195/4248 / 220
290
448
290
085

196/1854 / 94
1764
890

195/9004 / 462
780
1204
1170
240

196/1584 / 196
1204
1170
240
448
290
085

1809 178 1575
158
4910
528
270
1305
185
555
23
26
100
115
105

$\frac{H}{R} \left(\frac{cm}{i} - \frac{R}{2} \right)$
 $\frac{H}{R} \left(\frac{cm}{i} - \frac{R}{2} \right)$
 $\frac{H}{R} \left(\frac{cm}{i} - \frac{R}{2} \right)$
 $\frac{H}{R} \left(\frac{cm}{i} - \frac{R}{2} \right)$
 $\frac{H}{R} \left(\frac{cm}{i} - \frac{R}{2} \right)$
 $\frac{H}{R} \left(\frac{cm}{i} - \frac{R}{2} \right)$

0-2
52

-25 29 5542 1,94 194/5542 / 286

-25 29
 -50 -18
 100 -17
 150 -22
 200 -22
 250 21
 300 20

5542 1.94
 2249 1.95
 2057 1.95
 4040 1.95
 4040 1.96
 9829 1.96
 2646 1.96

199/5542/286
 $\frac{288}{1663}$
 $\frac{1552}{1110}$
 195/2249/164
 $\frac{195}{1299}$
 $\frac{1170}{1290}$
~~195/5007/157~~
 $\frac{195}{1107}$
 $\frac{975}{1320}$
 195/4040/204
 $\frac{290}{1400}$

0 -44 - 966
 25 -67, 20° - 2,414
 50 -28 20 - 795
 75 -18° 10 - 3350
 100 -10° - 2014
 150 -17° 20 - 315
 200 -22° - 649
 250 -44 - 864

$\frac{H \sin z}{h} - \Delta$

$\frac{3H}{8h} - \Delta$

-100

-50 121
 -25 +70
 0 +90
 +25 +440
 +50 +70
 +100 -20
 150 0

700 210
 210 870
 110

196/3829/196
 $\frac{196}{1879}$
 $\frac{1764}{1150}$

196/2640/182
 $\frac{196}{1680}$
 $\frac{1568}{1120}$

0
 25
 50
 75
 100
 150
 200
 250

7242 2898
 $\frac{24}{900}$ 280
 1005 2285
 $\frac{3}{1693}$
 1447 945
 $\frac{8}{2607}$

16x66
 9x66
 3x66
 4x66
 5x66
 6x66
 7x66
 8x66
 9x66
 10x66
 11x66
 12x66
 13x66
 14x66
 15x66
 16x66
 17x66
 18x66
 19x66
 20x66
 21x66
 22x66
 23x66
 24x66
 25x66
 26x66
 27x66
 28x66
 29x66
 30x66
 31x66
 32x66
 33x66
 34x66
 35x66
 36x66
 37x66
 38x66
 39x66
 40x66
 41x66
 42x66
 43x66
 44x66
 45x66
 46x66
 47x66
 48x66
 49x66
 50x66

$$\frac{\partial^2 V}{\partial x^2} = \frac{\partial^2 h}{\partial x^2}$$

247
259

$$Z = \frac{h}{\cos i} \sin \left(i - \frac{x}{R} \right) = \frac{h}{\cos i} \sin i - h \cdot \frac{x}{R}$$

$$= h \tan i - h \frac{x}{R}$$



$$\frac{\partial Z}{\partial x} = \frac{\partial h}{\partial x} \tan i + \frac{\partial i}{\partial x} h \frac{1}{\cos^2 i} - \frac{h}{R}$$

$$\frac{1}{h} \frac{\partial Z}{\partial x} = \frac{\partial \tan i}{\partial x} + \frac{\tan i}{\cos i} - \frac{1}{R}$$

MAJLIS
KODOKRASI AKADEMIK
KEMENTERIAN
KONVANSI

254

19240
650

1,8693
260

1,9183

1924 | 1,2572 | ~~40650~~

334

140 | 27 |
27

113

190
27

763
226

496

19240
226

1,9017

2125
628

242
684

286
572

3285
657

65

$$\frac{\partial V}{\partial x_2} = \frac{3M}{r^7} \left\{ -3ax^2 - 3c^2 y_i^2 + 15a^3 + 15a^2 c^2 y_i \right\}$$

$$\frac{\partial V}{\partial y} \left\{ -3a^3 - 3ac^2 - \frac{3c^2 y_i^2}{r^7} - \frac{3ca^2}{r^7} + \frac{15a^3}{r^7} + \frac{15a^2 c^2 y_i}{r^7} \right\}$$

$$\frac{3M}{r^7} \left\{ \frac{15a^3}{r^7} + 2a^3 + 4a^2 c^2 y_i - 3ac^2 - c^2 y_i \right\}$$

$$\frac{\partial^2 V}{\partial x^2} \left\{ 2x^3 + 4y_i x^2 - 3x - y_i \right\}$$

$$\frac{-150}{114}$$

216 ha 10 cl.
1080 500 cl.
750 m.

$$\frac{1}{r} = \frac{215.50}{1000} = 0.2155$$

$$\frac{1711950}{111960}$$

$$\frac{1020}{972} = 1.0494$$

$$\frac{3500}{500} = 7$$

$$\frac{3400}{100} = 34$$

$$\frac{571}{19} = 29.99$$

$$\frac{1761200}{12240} = 143.88$$

$$\frac{924}{111960}$$

$$\frac{10142}{111960}$$

$$\frac{1000}{210} = 4.76$$

$$\frac{2000}{614}$$

$$\frac{1420}{92}$$

$$\frac{19}{119690}$$

$$\frac{0.1}{14}$$

$$-1428 +$$

$$\frac{72}{216} = 0.333$$

$$\frac{17}{210} = 0.081$$

$$\frac{480}{111960}$$

$$\frac{514}{1230}$$

1,728

3456
2456
28016

5488
5488
60368

8192
8192
90112

11664
11664
128004

21250
21250
342750

54 128
54 128
594 1408

11,232
92
21,032

15,680

144
576

~~1184~~ 1,96
784
88

2,56
1024

2,24
1296

6,25
2500

16
64 9
36

3,317
884
547

20,992
108
18152

27,216
116
15,616

2414
124
22

12116
6814
1532

24,2200
1010112
143088

884
252

16,2200
48066
11,5484

20,160
7,0268
13,1232

14,204
6128
8,176

56875
144
42475

204,8
262
168,6

28,8000
17,8204
149696

47,0000
35,12750
11625

62,4000
60,4000
20
141,8

18,526
7144
11,392

92,240
164
75940

164,600
204
14412

95,4
274
680

11,5600
95616
119924

13,8768
12,22
0,5568

99,2
42,6

23,296
8496
141800

3414
1214
22

NOTAS
JUDICIAL OF KADAZA
KUNYAKA

59275
23
36,275

25,7504
16,84
8,9504

19,2512
1508
4,1712

28,584
101,222
181,252

51,250
201,225
31,225

77,24
2114
4594

177 78 13 19 1

17 8 13 19
85 40 65 95

15/10/

- 75 - 15 0 | 15 26
- 175 - 75 0 | +75 180

60
-50
10
40

-20

105 | 17 | 8 | 12 | 18
85 | 40 | 60 | 90

60-55 104°
105
100
58
80

200
150
0
+150
+250

Schneckenpost - Lintwerfels.

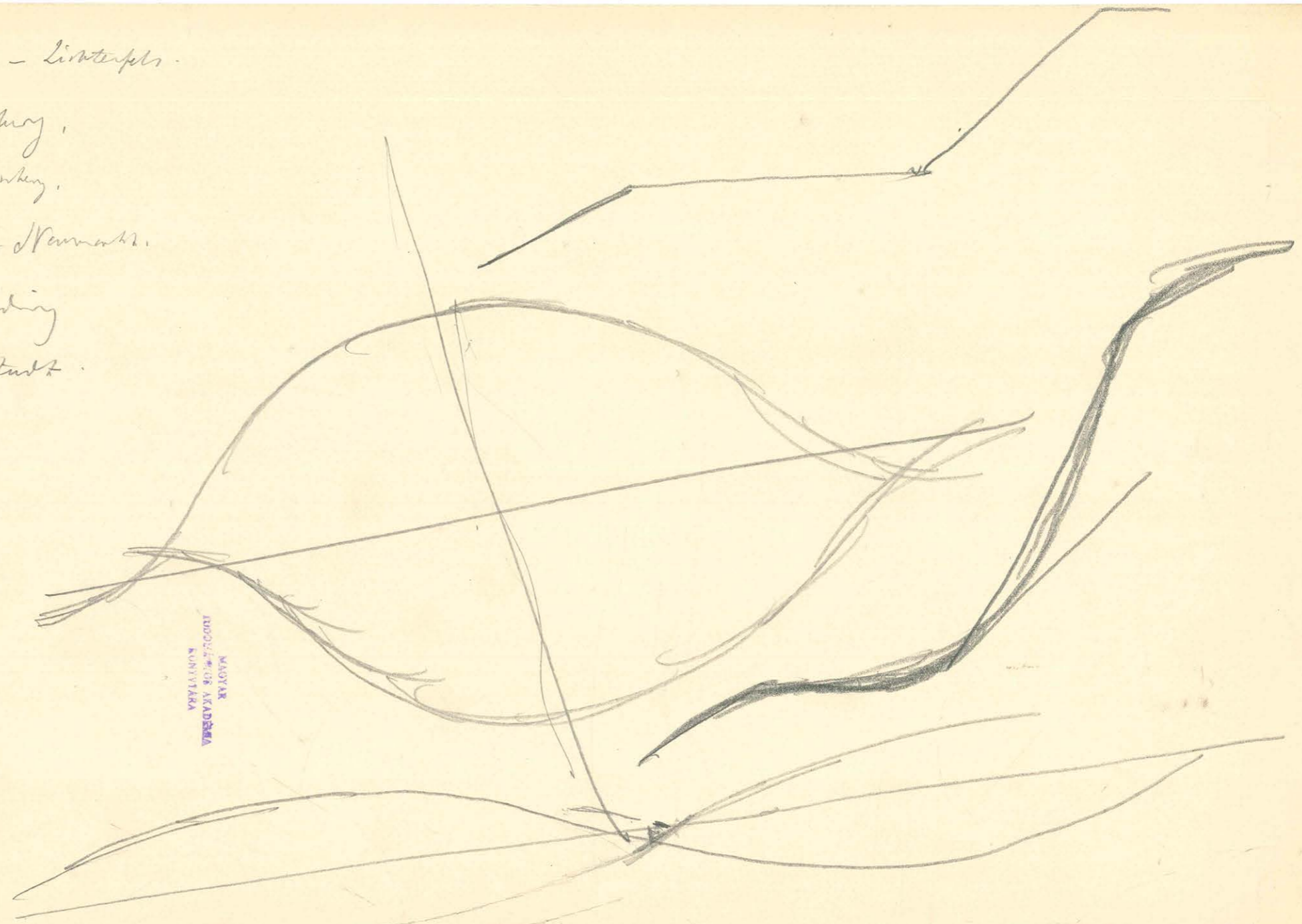
Bamberg.

Nürnberg.

Roth - Memminger.

Grading

Regelstadt.



MAVAK
JUDICIAL ACADEMY
KONYA

$$S = \frac{-\mu}{(a^2+c^2)^{\frac{5}{2}}} (a^2+c^2-2c^2) = \frac{-\mu}{(a^2+c^2)^{\frac{5}{2}}} (a^2-2c^2) = \frac{-\mu c^2}{(a^2+c^2)^{\frac{5}{2}}} (\alpha^2-2)$$

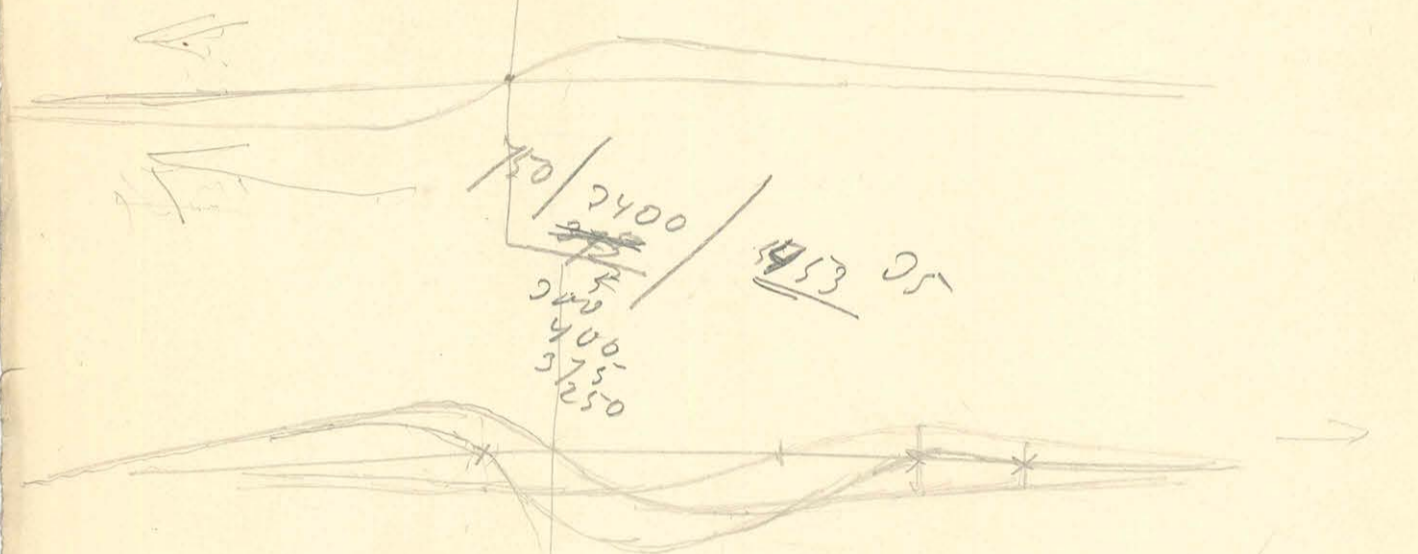
$$= \frac{\mu}{c^3(1+\alpha^2)^{\frac{5}{2}}}$$

191

$$\frac{\partial Z}{\partial x} = -3\mu \frac{ac}{(a^2+c^2)^{\frac{5}{2}}} = \frac{+3\mu \alpha}{c^3(1+\alpha^2)^{\frac{5}{2}}}$$

450

Molken	1,9055	65	6,0
Cham	1,9143	65°	40
Pilsen	1,8931	65	25,0



19 / 450 / 228

28
70
57
160

750 / 3500 / 0,471
200
500
525
50
1413

141
138

$\frac{dl}{h}$

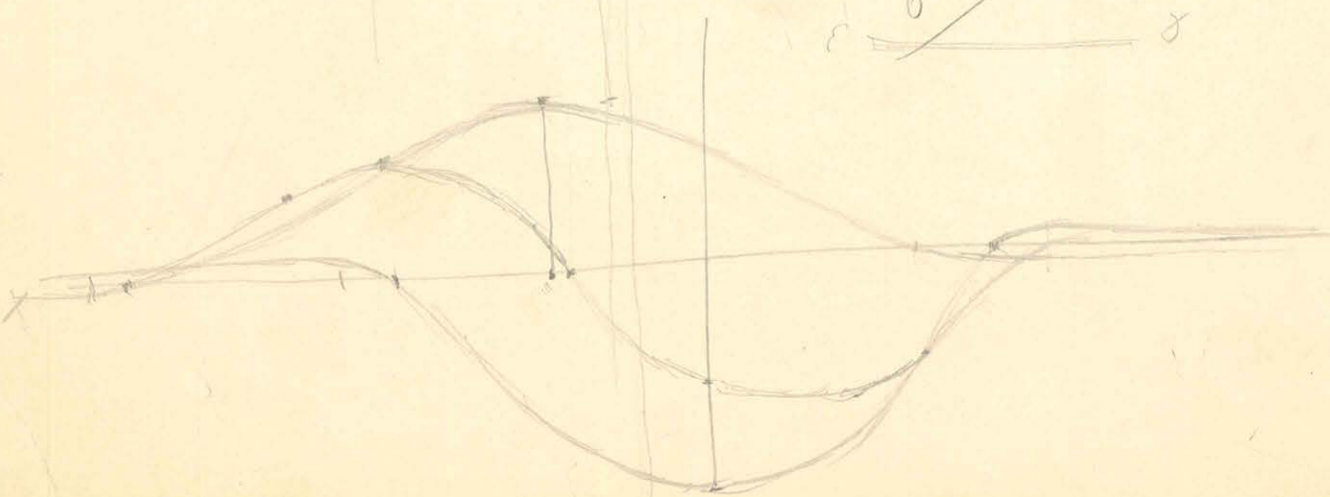
2,27658
0,24928

2,12730

2,12588
0,22202 -1

2,19790

726
630



- 0,98060 -1 2,26007 - 0,46594 -1	- 0,99997 -1 2,29126 - 0,28186 -2	- 0,97821 - 2,31806 - 0,48998 -1	- 0,97821 -1 2,31597 - 0,48998 -1	- 0,98284 -1 2,19590 - 0,44054 -1	- 0,99195 -1 2,22272 - 0,28060 -1	- 0,99575 2,45627 - 0,14356 -1	- 0,99761 -1 2,68921 - 0,01922 -1
2,24067 1,72601 -174 -53	- 0,97567 -1 2,29226 - 0,51264 -1	2,29627 1,80804	2,29418 1,80595	2,17874 1,63624	2,21467 1,50332	2,45212 1,59993	2,68692 1,70854
	2,26793 1,80490 -185 -64	-198 -64	-197 -64	-151 -40	-164 -32	-283 -40	-486 -57

- 0,99675 -1 2,84223 + 0,08589 -1	- 0,99040 -1 2,59879 + 0,31788 -1	- 0,99575 -1 2,47567 + 0,14356 -1	- 0,99894 -1 2,36549 + 0,84258 -2	+ 0,99992 -1 2,27875 - 0,24196 -2	- 0,99974 -1 2,34429 - 0,54282 -2	- 0,99940 -1 2,56248 - 0,71880 -2	2,
2,83998 1,92912 - 692 + 85	2,58919 1,91667 - 388 + 83	2,47142 1,61923 - 296 + 42	2,36443 1,20907 - 237 + 16	2,27868 0,52071 - 190 - 3	2,34413 0,88721 - 221 - 8	2,56288 1,28228 - 365 - 19	

МАУНА
 ИДУЛИТИС АКАДЕМИ
 КОВИЯРА

+ 0,99993 -1
2,20750
+ 0,24186 -2

2,30743
0,54936

203

4

0,000000
2,24797
-∞

2,24797
-∞

0,00000
2,18752
-∞

0,00000
2,22045
-∞

+ 99993 -1
2,28556
+ 24186 -2

2,28549
0,52742

193

3

+ 0,99940 -1
2,22634
+ 0,71880 -2

2,32574
1,04514

212

11

+ 99894 -1
2,34635
+ 84258 -2

2,34529
1,18993

221

16

+ 99462 -1
2,37840
+ 19422 -1

2,37902
1,57273

236

37

97299 -1
2,55288
52405 -1

2,52687
2,08793

336

123

97299
2,62221
52405 -1

2,59520
2,15626

394

143

97299 -1
2,60206
52405 -1

2,57505
2,12611

376

137

97299 -1
2,56229
52405 -1

2,53528
2,09634

343

125

97299
2,34820
52405 -1

2,32129
1,88235

210

76

96562
2,13022
58244 -1

2,09595
1,71317

125

52

95728
2,95904
62595

1,91632
1,58499

82

38

2,87090
34150
3,15220

2,24409
34264
2,68803

1,98677
34465
2,33142

2,06446
34499
2,40945

2,08279
34600
2,42879

2,21287
34800
2,66190

1,96279
34928
2,31317

1,86923
34928
2,21861

2,39967
34972
2,74939

2,66745
35108
3,01853

2,65514
35246
3,00860

2,56229
35619
2,91848

2,21175
35860
2,67035

2,21219
36052
2,57251

2,47129
0,22546 -1
3,23583

2,14922
0,23156 -1
2,91768

1,66276
0,22988 -1
2,43288

1,72428
0,22922 -1
2,39496

2,11727
0,22764 -1
2,88963

2,26007
0,22428 -1
3,03579

1,57978
0,22202 -1
2,35776

1,11294
0,22202 -1
2,89192

1,94448
0,22146 -1
2,72302

2,21219
0,21920 -1
2,99299

2,33244
0,21462 -1
3,11782

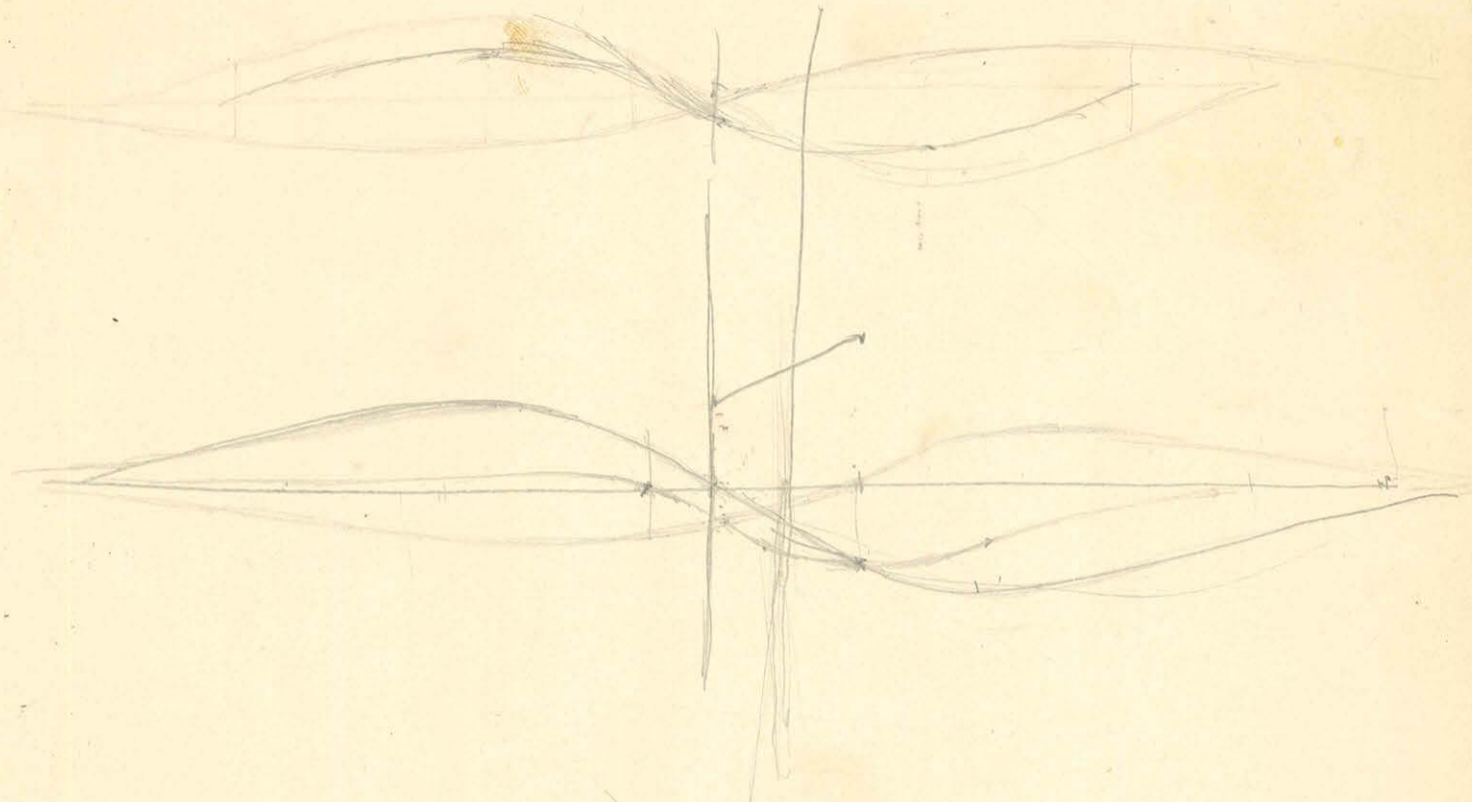
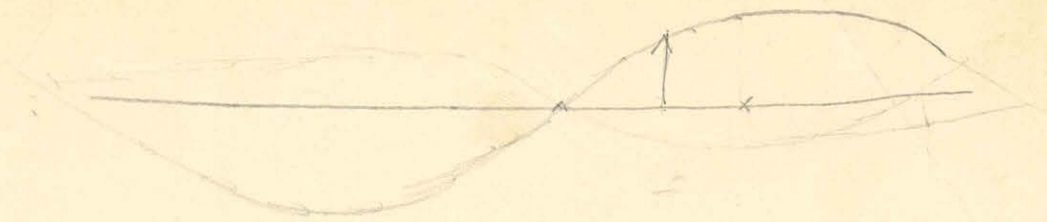
2,40140
0,21064 -1
3,19070

2,23045
0,20662 -1
3,02383

2,11244
0,20572 -1
2,91022

MAJLIS
KONGRES
AKADEMI
KUNYARA

2



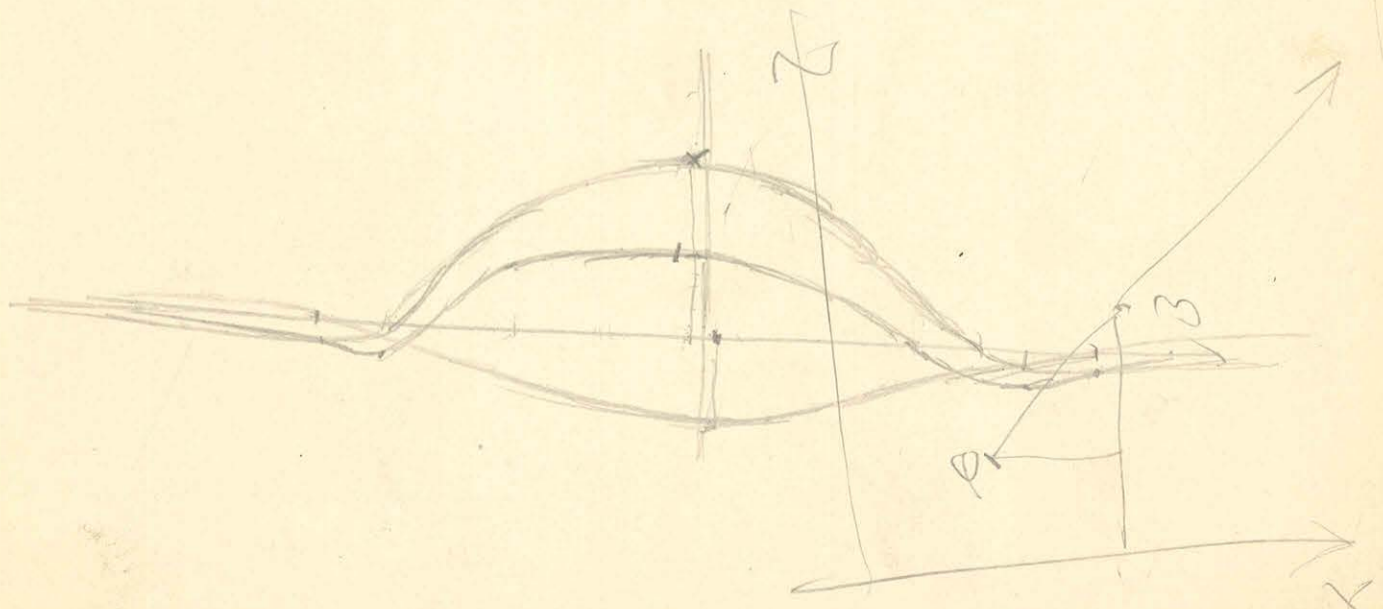
$$d^2 + 3d + 2 = 0$$

$$d = -1 \text{ or } -2$$

$$d^2 + 2d - 4 = 0$$

$$d = -1 \pm \sqrt{5}$$

2/10



C = 10
C = 13



$$\left(\frac{\delta F}{\delta q}\right)_0 = 4A_1 + 8d_3 + 12d_{12} + 16d_{16} + 20d_{20}$$

- $\lambda^6 = 9,262144$
- $\lambda^0 = 0,1073742$
- $\lambda^4 = 0,04098047$
- $\lambda^8 = 0,01801441$
- $\lambda^2 = 0,64$
- $\lambda^4 = 0,4096$

$$8d_3 A^6 = -0,0124737$$

$$\begin{array}{r} 0,0000559 \\ \hline 0,0125296 \\ 0000040 \\ \hline -0,0125256 \\ \hline 41,4779 \\ \hline 0,4273046 \\ \hline 0,1068262 \end{array}$$

$$12d_{12} = \frac{0,00070244}{00000796}$$

$$0,000729$$
~~$$0,000729$$~~

$$0,0000059$$

$$-0,0000347$$

$$\begin{array}{r} 0,0000059 \\ \hline 0,0000347 \\ \hline 0,0000347 \\ \hline 0,0000347 \\ \hline 0,0000347 \end{array}$$

$$0,057916$$

$$0,060251$$

$$0,1678644$$

$$0,057916$$

$$0,149878$$

$$0,1665310$$

$$\left\{ \begin{array}{l} d_4 + d_4' + d_4'' = 0,1665546 \\ d_4 + 0,64d_4' + 0,4096d_4'' = 0,1669159 \\ d_4 + 0,09d_4' + 0,0081d_4'' = 0,1692078 \end{array} \right.$$

$$+ 0,36d_4' + 0,5904d_4'' = -0,0000613$$

$$0,55d_4' + 0,4015d_4'' = -0,0022919$$

$$d_4' + 1,64d_4'' = -0,0010036111$$

$$d_4' + 0,173d_4'' = -0,0041670909$$

$$0,91d_4'' = 0,0031634798$$

$$0,1672654$$

$$\left\{ \begin{array}{l} d_4'' = 0,00347635 \\ d_4' = 0,0067048 \\ d_4 = 0,1697800 \end{array} \right.$$

MAGYAR TUDOMÁNYOS AKADÉMIA KÖNYVTÁRA

$$0,00682140$$

$$0,00021852$$

$$0,047$$

$$0,00127155$$

$$\begin{array}{r} 1665546 \\ 67048 \\ \hline 1732594 \\ 34764 \\ \hline 0,1697830 \end{array}$$

$$\begin{array}{r} 0,1665546 \\ 0,00142791 \\ 1697830 \\ \hline 0,1712059 \\ 42911 \\ \hline 1669158 \end{array}$$

$$\begin{array}{r} 4270047 \\ 0,6676626 \\ \hline 0007024 \\ 0000039 \\ \hline 0,6683999 \\ 124735 \\ \hline 0000559 \\ \hline 0,0125294 \\ 4270047 \\ \hline 4280410 \\ \hline 4155116 \\ 47 \end{array}$$

$2 \quad 0,920880 \quad 4785 \quad 0,762998 - 3$
 $0,38268 \quad 0,600000 \quad 0,568256$
 $0,581016 - 1$
 $0,281444$

$\square \varphi = 22\frac{1}{2}^\circ$

$3,701317$
 $1,911809$

 $5,613126$
 91

$3,701217$
 281080

 $4,082397$
 81

$0,005754$
 $1,911809$

 $1,917563$
 51

$0,005794$
 $0,381080$

 $0,386874$
 41

$0,982864$

$0,907540$

$0,772146$

$0,642155$

1)

$0,881499 - 2$
 301030

 $0,182529 - 1$
 $0,140723$

 $0,041806 - 1$
 $0,386073$

 $0,655733 - 2$
 $20^\circ 35' 29\frac{1}{2}''$

 $0,0349066$
 101811
 1401

 $0,0452308$

2)

$0,284178$
 301030

 $0,585208$
 $0,140723$

 $0,444485$
 $0,491473$

 $0,953652 - 1$
 $41^\circ 54' 33\frac{1}{2}''$

 $0,7155850$
 157080
 1600

 $0,7314530$

3)

$0,182529 - 1$
 $0,1790508 - 1$

 $0,392021 - 1$
 $0,221077$

 $0,070944 - 1$
 $6^\circ 42' 55\frac{1}{2}''$

 $0,1047198$
 122173
 2690

 $0,1172061$

4)

$0,585208$
 $0,1790508 - 1$

 $0,794700$
 $0,452770$

 $0,340929$
 $65^\circ 28' 54\frac{1}{2}''$

 $1,1344640$
 81449
 2648

 $1,1428707$

5)

$0,140723$
 301030

 $0,441753$
 $0,284178$

 $0,157575$
 $0,491473$

 $0,666142 - 1$
 $24^\circ 52' 20\frac{1}{2}''$

 $0,4188790$
 151262
 994

 $0,4341046$

6)

$0,790508 - 1$
 301030

 $0,091538$
 $0,284178$

 $0,807360 - 1$
 $0,452770$

 $0,353589 - 1$
 $12^\circ 43' 13''$

 $0,2094295$
 125082
 630

 $0,2220107$

7)

MAGYAR TUDOMÁNYOS AKADÉMIA KÖNYVTÁRA

 $0,441753$
 $0,881499 - 2$

 $1,560254$
 $0,786070$

 $1,174181$
 $86^\circ 10' 9''$

 $1,5009832$
 29089
 436

 $1,5039357$

8)

2 pois

 $0,091538$
 $0,881499 - 2$

 $1,210039$
 $0,221077$

 $0,888962$
 $82^\circ 32' 31''$
 $38'$

 $1,4211700$
 ~~93084~~
 1503

 $1,4406287$

 $1,4211700$
 110528
 1503

 $1,4423741$

0,703848-3

$\varphi = \omega^h$ II-II

9)	10	11)	12)
$\begin{array}{r} 1,911812 \\ 0,005794 \\ \hline 1,917606 \end{array}$	$\begin{array}{r} 1,911812 \\ 3,701314 \\ \hline 5,613126 \end{array}$	$\begin{array}{r} 3,701314 \\ 0,381080 \\ \hline 4,082394 \end{array}$	$\begin{array}{r} 3,701314 \\ 1,911812 \\ \hline 5,613126 \end{array}$
$\begin{array}{r} 0,381080 \\ 0,005794 \\ \hline 0,386874 \end{array}$	$\begin{array}{r} 0,381080 \\ 3,701314 \\ \hline 4,082394 \end{array}$	$\begin{array}{r} 0,005794 \\ 0,381080 \\ \hline 0,386874 \end{array}$	$\begin{array}{r} 0,005794 \\ 1,911812 \\ \hline 1,917606 \end{array}$
$\begin{array}{r} 0,282759 \\ 9,587569 -1 \\ \hline 0,695190 \\ 0,347595 \end{array}$	$\begin{array}{r} 0,749205 \\ 0,610915 \\ \hline 0,138299 \\ 0,069145 \end{array}$	$\begin{array}{r} 0,610915 \\ 0,587569 -1 \\ \hline 1,023346 \\ 0,511673 \end{array}$	$\begin{array}{r} 0,749205 \\ 0,282759 \\ \hline 0,466446 \\ 0,222223 \end{array}$
$\begin{array}{r} 0,612299 \\ 0,646660 \\ \hline 0,965539 -1 \\ 347595 \\ \hline 0,313134 = (II-II)h \end{array}$	$\begin{array}{r} 0,685110 \\ 0,707613 \\ \hline 0,977498 -1 \\ 0,069145 \\ \hline 0,046643 = (II-II)h \end{array}$	$\begin{array}{r} 0,612299 \\ 0,685110 \\ \hline 0,927088 -1 \\ 511673 \\ \hline 0,438764 \end{array}$	$\begin{array}{r} 0,646660 \\ 0,707613 \\ \hline 0,939047 -1 \\ 222223 \\ \hline 0,172270 \end{array}$
$\begin{array}{r} 0,495732 -1 \\ 362216 \\ \hline 0,857947 -1 \\ 0,881499 -2 \\ \hline 0,739447 -2 \end{array}$	$\begin{array}{r} 0,668786 -2 \\ 262216 \\ \hline 0,031002 -1 \\ 0,284178 \\ \hline 0,315167 -1 \end{array}$	$\begin{array}{r} 0,642228 -1 \\ 262216 \\ \hline 0,004444 \\ 0,790504 -1 \\ \hline 0,754955 -1 \end{array}$	$\begin{array}{r} 0,226210 -1 \\ 262216 \\ \hline 0,598426 -1 \\ 0,140722 \\ \hline 0,739151 -1 \end{array}$

III-III $\square \varphi = 22\frac{1}{2}$
 (13)

0,771721
 0,641581

 0,130140
 0,065070

0,076120
 2,094487

 2,170607

0,076120
 2,492613

 2,508733

0,326587
 0,399455

 0,937126 -1
 65070

0,002196
 16.32
 0,242028 -3
 262216

 0,704246 -3 by III-III
 0,265848
 0,703848 -3

14

0,7717
 2mm
 0,065070

1,922880
 2,842957

 4,766837

1,922880
 3,100504

 5,024384

0,678230
 0,701083

 0,977147 -1
 65070

0,042217
 0,625487 -2
 262216

 0,987703 -2

15

0,886565
 0,602688

 0,283877
 0,141939

0,617017
 2,094487

 2,711804

0,617317
 2,842957

 3,460274

0,432259
 0,539110

 0,894148 -1
 141939

0,036087
 0,557051 -2
 262216

 0,919567 -2

16

2mm
 0,141939

1,382683
 2,432613

 3,815296

1,282683
 3,100504

 4,483187

0,581529
 0,651589

 0,929942 -1
 141939

0,071881
 0,856614 -2
 262216

 0,218830 -1

$\square \varphi = 22\frac{1}{2}$ II-II

4 ft. 40 (22)

2,914214
 85786
 3,000000

0,085786
 0,085786
 0,171572

0,477122
 0,224446 -1
 0,242675
 0,621238

0,606644
 0,667056
 0,939588 -1
 621328
 0,560926

0,748906 -1
 362216
 0,111122
 1,291588

+ 0,696835
~~0,534992~~
 0,559941
 0,379500
 1,636276

23

2,914214
 2,914214
 5,828428

2,914214
 0,85786
 3,000000

0,765551
 477121
 0,288430
 0,144215

0,667056
 0,710543
 0,956513
 144215
 0,000728

0,003150 -1
 262216
 0,265366 -1
 0,231925

- 2,122506
 0,524992
 2,657498
 1,636276
 1,021222
 - 0,7221122

- 0,000005
 1,0065
 715602
 0,722108

24

0,839743
 0,611275
 0,228468

0,114224

0,292893
 2,042442
 2,035336

2,645751
 0,292892
 2,938644

0,368250
 0,468147
 0,900203
 1,14224
~~0,785969~~
 0,014427
 0,159477 -2
 262216
 0,521693

WATYK
 BIBLIOTEKA
 KONSYTULI

0,0065511
 0,06546
 715602
 0,722149

4 ft. 25

~~0,839743~~
 0,839743

0,114224

1,707107
 2,645751
 4,352858

1,707107
 2,125022
 4,842129

0,638775
 0,685028
 0,953737
 1,14224
 0,067971

0,822224 -2
 262216
 0,194540 -1
 0,156329
 156508

9,414214
 1-2k = 0,414214

0,0322421
 156508
 0,189750

0,004604
 0,009208
 0,0064456

$C=0$ végpont helyig ~~l=0,8~~ $l=0,8$
 $a=0$ $c=0$ $b=1$
 helyig
 táv.

0,201020	
0,579784	0,255270
0,942420	0,201030-1
<hr/>	<hr/>
0,237361	0,954243
0,54749	
0,692792	0,778650
<hr/>	<hr/>
0,841957-1	0,812818
287361	0,965815-1
<hr/>	<hr/>
0,079318	0,954242
	0,920058
0,899372-2	0,962815-1
262216	0,62216
<hr/>	<hr/>
0,261588-1	0,325131
	2,114125
<hr/>	<hr/>
0,182607	

$1 + \sqrt{2,2^2 + 1}$	$3 + \sqrt{9 + 0,2^2}$
$1 + \sqrt{3,8^2 + 1}$	$3 + \sqrt{9 + 1,8^2}$
<hr/>	<hr/>
$1 + \sqrt{5,84}$	$0 + \sqrt{9,04}$
$1 + \sqrt{15,44}$	$3 + \sqrt{12,24}$
	3,24
0,384837	0,478084
0,594324	0,543891
<hr/>	<hr/>
$1 + 2,42570$	$3 + 3,00666$
$1 + 3,92978$	$3 + 3,45857$
	2,642656
	193672
	<hr/>
	2448984

$$\frac{3,8}{3,92978} + \frac{2,2}{2,42570}$$

0,9670737
 0,9069547

 1,8740284
 0,2282960

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$$\frac{1}{3} \left(\frac{1,8}{3,49857} + \frac{0,2}{3,00666} \right)$$

0,5144959
 0,0665190

 0,5810149
 0,1936716

$d_1 = 1,6459321$ $l=0,8$

$d_2 = +2,448984$ $l=0,8$

$d = \text{végpont helyig} - 1,6865468$

3,16228
 0,9486826

 0,8422734
 1,6865468

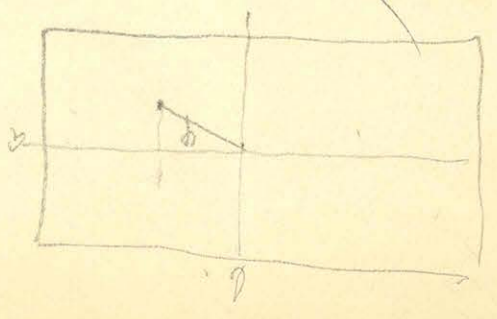
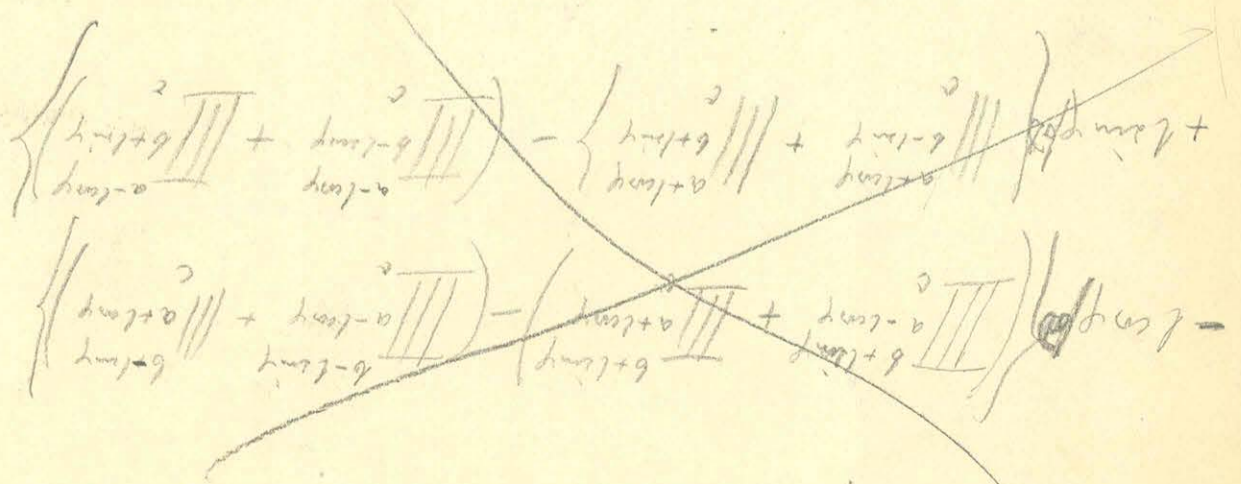
$$\begin{aligned}
 - \cos \gamma & 0,221301 = - 0,8976607 & 0,2136944 \\
 + \sin \gamma & 0,226745 = + 0,1874802 & 0,08677156 \\
 & & \hline
 & & 0,1269229
 \end{aligned}$$

$$\begin{aligned}
 \cos \gamma & 0,510324 \\
 \sin \gamma & 0,086977 \\
 \hline
 & 0,123347 \\
 & \hline
 & 0,2993016
 \end{aligned}$$

$$\begin{aligned}
 & \text{0,824} \\
 & 0,1952923 \\
 & 0,0803567 \\
 & \hline
 & 1149360
 \end{aligned}$$

$$\begin{aligned}
 & 0,408504 \\
 & 0,166861 \\
 & \hline
 & 0,241643
 \end{aligned}$$

17/120/7:



1,684642 9,2418589 32

$$d_2 = d_6 + d_{10} = 0,1708675$$

$$d_2 + 3d_6 + 5d_{10} = 0,1711605$$

$$d_2 + d_6 - d_{10} = 0,1710201$$

$$4d_6 + 4d_{10} = 0,0002930$$

$$2d_6 - 2d_{10} = 0,0001526$$

~~4d_6 + 4d_{10}~~

$$d_6 + d_{10} = 0,00007325$$

$$d_6 - d_{10} = 0,00007630$$

$$2d_{10} = -0,00000305$$

$$d_{10} = -0,000001502$$

$$d_8 = -0,00000701$$

$$d_6 = +0,000074775$$

$$d_4 = +0,00599245$$

$$d_2 = 0,1709428$$

$$2d_4 = 0,0119869$$

$$0,047834 = 8d_4 + 16d_8$$

$$d_4 + 2d_8 = 0,0059792$$

$$\begin{array}{r} 59935 \\ -00005142 \\ \hline 9869 \end{array}$$

$$\begin{array}{r} 0,1709428 \\ 0,0119869 \\ 0,0002243 \\ \hline 0,1831550 \\ 280 \\ \hline 75 \end{array}$$

$$\begin{array}{r} 0,1921295 \\ 0,2662490 \\ 0,3662380 \end{array}$$

$$2d_6 = + 0,0001404$$

$$d_6 = 0,0000702$$

$$d_2 = 0,1709499$$

$$0,1708797$$

$c = 0 \quad a = 3 \quad b = 1 \quad d = \frac{1}{2}$

~~0,845098~~
 0,845098
 0,698970

 0,146128

0,567320
 0,666523

 0,900807
 1,46128

 0,046925

0,477121

$\frac{1 + \sqrt{7,25}}{1 + \sqrt{13,25}}$

$\frac{3 + \sqrt{9,25}}{3 + \sqrt{11,25}}$

0,671497-2
 2622,6

 0,020713-1

0,108072
 0,216144

0,781136
 0,803055

 0,978084-1
 477121

 0,455202

0,420169
 0,561108

0,482071
 0,525577

$\frac{1 + 2,69258}{1 + 3,64006}$

$\frac{3 + 3,04128}{3 + 3,25411}$

0,658204
 2622,6

 0,020420

1,048141
 2,096282
 202871

 1,892411

$\frac{3,5}{2,64006} + \frac{2,5}{2,69258}$

$H_1 = -1,672856 \cdot 2/000$

$H_2 = +1,892411 \cdot 2/000$

0,9615226
 0,9284775

 1,8900001
 216144

 1,673856

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$\frac{1}{3} \cdot \left(\frac{1,5}{2,35411} + \frac{0,5}{2,04128} \right)$

0,4472125
 1,647590

 0,6116115
 0,2038705

2566267

281442
581016

$$\begin{array}{r} 4 \\ 3,401314 \\ 146446 \\ \hline 7,847760 \\ 36 \end{array}$$

0,005794
146446

$$\begin{array}{r} 4 \\ 0,005794 \\ 146446 \\ \hline 4,152240 \end{array}$$

0,894745
0,447373

$$\begin{array}{r} 2,801381 \\ 5 \end{array}$$

0,618282
0,309141

$$\begin{array}{r} 2,037705 \end{array}$$

$$-2 \left(\sqrt{17} + \frac{9}{\sqrt{17}} \right) \frac{2}{153+16}$$

15707960
1299045

$$\begin{array}{r} 2 \\ \hline 0,021751 \end{array}$$

and $\frac{1}{2} = 0,021751$

$$\frac{2}{\sqrt{21}}$$

$$\frac{104}{169\sqrt{17}}$$

- 0,

0,207020
0,661110

$$\begin{array}{r} 0,629920 -1 \\ 802000 \\ \hline 23^\circ 24' 41\frac{1}{2}'' \end{array}$$

0,027860 -1

6° 13' 37"

0,2764728
0,955505

$$\begin{array}{r} 0,9720223 \end{array}$$

4074257
98902
2072

1047148
37815
1794

0,4115171
321751

$$\begin{array}{r} 0,089766 \end{array}$$

0,1086807
321751

$$\begin{array}{r} 2,13070 \end{array}$$

0,661110

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$$\sqrt{21} = 4,58258$$

$$2 \left(\frac{1}{5,8} + \frac{1}{17\sqrt{21}} \right)$$

0,0666667
0,0128263

$$\begin{array}{r} 0,0795030 \\ 0,1590060 \\ 215070 \end{array}$$

556972
615225

13 | 1,112940
954240

$$\begin{array}{r} 9 | 0,159700 \\ 0,079850 \end{array}$$

0,272076
0,186038

0,648770
0,818796

$$\begin{array}{r} 0,8805774 -1 \\ 0,748619 \\ 0,178697 \\ \hline 0,961647 \\ 79850 \\ \hline 0,041497 \end{array}$$

$$\frac{2+\sqrt{13}}{2+\sqrt{17}}$$

$$\frac{2+2,60556}{2+4,12311}$$

618017
262216

0,980222 -2

0,1492525
955505

$$\begin{array}{r} 0,2448030 \end{array}$$

$$\frac{\pi}{2} \quad \frac{2}{1} = \frac{1}{0}$$

$$\sqrt{5} = 2,236068$$

$$18^\circ 26' 6''$$

$$71^\circ 33' 54''$$

$$\begin{array}{r} 1,2391828 \\ 95990 \\ \hline 26118 \end{array}$$

$$\begin{array}{r} 1,2496449 \\ 5128800 \\ \hline 1,7625249 \end{array}$$

$$2 \left(\frac{1}{\sqrt{5}} + \frac{1}{5.3} \right)$$

$$\begin{array}{r} 0,0666667 \\ 0,4472136 \\ \hline 5138803 \end{array}$$

$$\begin{array}{r} 2,236068 \\ 5000000 \\ \hline 5000000 \end{array}$$

$$0,881460$$

$$\frac{1}{2} \log 5 + \log \frac{2 + \sqrt{5}}{2 + 3}$$

$$\log(2 + \sqrt{5}) - \frac{1}{2} \log 5$$

$$\begin{array}{r} 0,626963 \\ 1,349485 \\ \hline 0,277478 \end{array}$$

$$\begin{array}{r} 0,447229 - 1 \\ 562216 \\ \hline 0,805445 - 1 \end{array}$$

$$0,628918$$

$$-2 \left[\left(3 + \frac{1}{3} \right) \frac{2}{9 + 16} \right]$$

$$- \frac{4}{25} \cdot \frac{10}{3} - \frac{40}{75} \cdot \frac{8}{15}$$

$$\begin{array}{r} 0,533333 \\ 628918 \\ \hline 1,172251 \end{array}$$

$$d_2 + 3d_6 + 5d_{10} = 0,366897$$

$$d_2 - d_6 + d_{10} = 0,521248$$

$$d_2 + d_6 - d_{10} = 0,464228$$

$$d_2 = 0,492793$$

$$d_4 = 0,082024$$

$$d_6 = -0,033584$$

$$d_8 = -0,022553$$

$$d_{10} = -0,005029$$

~~1,225049~~
 1,467589
 988
 0,3668973
 0,656532

$$4d_6 + 4d_{10} = -0,159451$$

$$2d_6 - 2d_{10} = -0,057110$$

$$2d_6 + 2d_{10} = -0,107226$$

$$4d_6 = -0,134226 \quad 4010058$$

$$2d_6 = -0,067113 \quad 5029$$

$$d_6 = -0,033584 \quad 33584$$

164024

464228
 32084
 497822
 497793

985586
 4927

$$d_4 + 2d_8 = 0,295337$$

$$d_4 + 2d_8 = 0,036917$$

464228
 32584
 497822
 5029
 492793

$$2d_8 = -0,2584$$

$$d_8 = -0,1292$$

0,492793
 164024
 0,656841
 216109
 0,440732

0,100752
 0,090212
 0,025145
 216109

$a=0$ $b=1=l$ $c=2$ Leuner katasa.

$\varphi = 22\frac{1}{2}$ $\cos 22\frac{1}{2} = 0,923880$ $\cos^2 = 0,853554$
 $\sin 22\frac{1}{2} = 0,382683$

$1+\sin = 1,382683$ $\frac{1}{2}(1+\sin) = 0,140721$
 $1-\sin = 0,617317$ $\frac{1}{2}(1-\sin) = 0,790508-i$

Quadrat
 $1,911802$ $\log \sqrt{\cos^2 + (1+\sin)^2 + c^2} = 0,415146$
 $0,381080$ $\log \sqrt{\cos^2 + (1-\sin)^2 + c^2} = 0,359444$

$\sqrt{\cos^2 + (1+\sin)^2 + c^2} = 2,6010³²$
 $\sqrt{\cos^2 + (1-\sin)^2 + c^2} = 2,287933$

2,765366
 $1,911812$
 853554
 381080
1,234634

 $0,441752$
 $0,091538$
0,350214
 $0,175107$

 $0,632248$
 $0,662855$
0,969393-1
 175107
0,144500

 $0,159868-1$
 362216
0,522084-1

$301030,$
 140721
441751
 $965615-1$
476136
 415146
0,060990
 $49^\circ 0' 37''$

 $0,8552113$
 1794
0,8553907

301030
 $790508-1$
091538
 $965615-1$
125923
 359444
766479-1
 $30^\circ 17' 19''$

 $0,5235988,$
 $0049451,$
 921
0,5286360
 8553907
1,3840267
 $2,7680534 \sin \varphi$

$F_{22\frac{1}{2}} = +4768,0,111123$

11-11 = 0,332724
 $0,665448 \cos \varphi$

 $- 0,614794$
 $+ 1,059287$
+ 0,444493

$\varphi = 67\frac{1}{2}$ $\cos \varphi = 0,322683$ $\sin \varphi = 0,923880$ $\cos^2 \varphi = 0,582840-1$ $\cos^2 \varphi = 0,146446$

$1 + \sin = 1,923880$ $2(1 + \sin) = 3,701314$ $\lg \sqrt{\cos^2 + (1 + \sin)^2 + c^2} = 0,447373$
 $1 - \sin = 0,076120$ $2(1 - \sin) = 0,881499-2$ $0,005794$ $\lg \sqrt{\cos^2 + (1 - \sin)^2 + c^2} = 0,309141$
 $\sqrt{\cos^2 + (1 + \sin)^2 + c^2} = 2,801385$
 $\sqrt{\cos^2 + (1 - \sin)^2 + c^2} = 2,037705$

3,847760
 3,701314
 146446
 005794

 0,152240

 585208
 182529-1

 1,402679
 701340

 606134
 681367

 924767-1
 701340

 0,626107

 796649-1
 362216

 0,158865

301030
 284178

 585208
 582840-1

 1,002368
 447373

 0,554995

 74° 25' 54"

 1,2915436
 72722
 2618

 1,2990776

 -1,1034520
 +2,7566417

 +1,6531897

301030
 881499-2

 182529-1
 582840-1

 599689-1
 309141

 290548-1

 11° 2' 49"

 0,1919862
 5818
 2376

 0,1928056
 1,2990776

 1,4918832

 2,9837664 sin φ

H-II = 1,441670
 2,883340 cos φ

$\varphi_{67\frac{1}{2}} = +4759,0,413297$

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0,231201
 0,226745
 241859

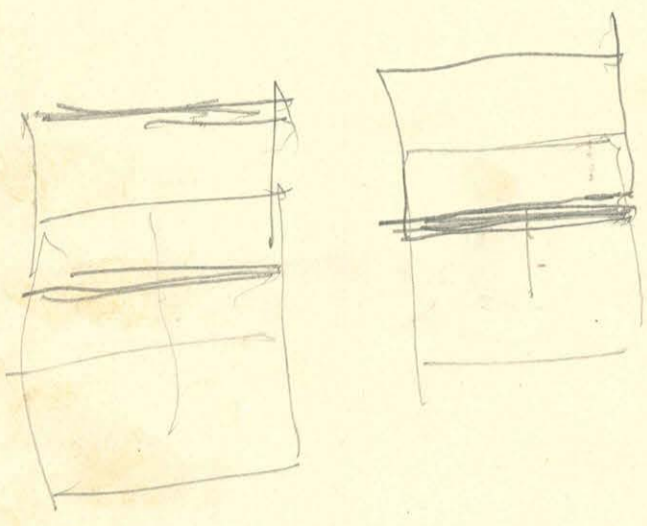


0,853554
 1911812
 0,765386
 61 23

0,853554
 0,387080
 1,234634
 51 69

830292

718887



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 TUDOMÁNYOS AKADÉMIA
 KÖNYVTÁRA

0,2397904
 0022200
 0,2375704
 0000012
 0,2375704
 0,2375704
 0,2375704
 0,2375704

0,05995256
 00000438
 0,05995256
 0,05995256
 0,05995256
 0,05995256
 0,05995256

$$0,36 d_4' + 0,5964 d_4'' = +0,0000283$$

$$0,155 d_4' + 0,4015 d_4'' = -0,0000037$$

$$d_4' + 1,64 d_4'' = +0,00007861$$

$$d_4' + 0,73 d_4'' = -0,00000673$$

$$0,91 d_4'' = 0,00008534$$

$$\left\{ \begin{array}{l} d_4'' = 0,00009378 \\ d_4' = -0,00007519 \\ d_4 = 0,1665260 \end{array} \right.$$

$$\begin{array}{r} 0,000152809 \\ 00007861 \\ \hline 000007519 \end{array}$$

$$\begin{array}{r} 1665546 \\ 752 \\ \hline \end{array}$$

$$\begin{array}{r} 0,1665298 \\ 938 \\ \hline \end{array}$$

$$\begin{array}{r} 0,1665360 \\ \hline \end{array}$$

0,047

0,001

0,006

0,00021852

$$\begin{array}{r} 0,1065800 \\ 246 \\ \hline \end{array}$$

$$\begin{array}{r} 0,1066076 \\ 0000308 \\ \hline \end{array}$$

$$\begin{array}{r} 10657.68 \\ \hline \end{array}$$

MADYAK
TUDJANING AKADEMI
KUNYARA

$$\begin{array}{r} 0,4263072 \\ 0,0007024 \\ 0,0000039 \\ \hline 0,4270135 \\ 125296 \\ \hline 0,4145139 \end{array}$$

$$\begin{array}{r} 0,01242065 \\ 00002291 \\ 00005592 \\ \hline 01252957 \end{array}$$

308441

+ 0,063625

~~$d_2 + d_1$~~

0,107319

$$d_2 + 3d_6 + 5d_{10} = 0,07911025$$

$$d_2 - d_6 + d_{10} = 0,07466600$$

$$d_2 + d_6 - d_{10} = 0,07588600$$

$$d_2 = 0,07527600$$

$$d_4 = 0,0078865$$

$$d_6 = 0,00061050$$

$$d_8 = +0,0000340$$

$$d_{10} = 0,00000050$$

0,015773

$$4d_6 + 4d_{10} = 0,0024425$$

$$2d_6 - 2d_{10} = 0,00122000$$

~~2d~~

$$d_6 + d_{10} = 0,00061106$$

$$d_6 - d_{10} = 0,00061000$$

$$2d_{10} = 0,00000106$$

$$\begin{array}{r}
 78865 \\
 4d_4 + 2d_8 = +0,007954375 \\
 \hline
 0,0001821 \\
 \hline
 0,0000679
 \end{array}$$

$$\begin{array}{r}
 0,0752760 \\
 0,00611 \\
 \hline
 81086
 \end{array}$$

$$\begin{array}{r}
 0,07527600 \\
 0,01577730 \\
 0,00182159 \\
 \hline
 0,09288059 \\
 2,6420 \\
 \hline
 0,09252639 \\
 0,09201659 \\
 \hline
 0,10610 \\
 92019
 \end{array}$$

$$\begin{array}{r}
 0,0752760 \\
 0,006105 \\
 \hline
 0,0746655
 \end{array}$$

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16 40

211 73

5

63 13

$$\begin{array}{r}
 45^\circ \\
 \hline
 b=i \quad 1,291583 \\
 a=i \quad 0,231935 \\
 \hline
 - 1,523518 \\
 - 0,567858 \\
 \hline
 0,128977 \\
 \hline
 - 2,219353 \\
 + 2,122506 \\
 \hline
 \end{array}
 \quad
 \begin{array}{r}
 \hline
 1,347607 \\
 0,774899 \\
 \hline
 2,122506 \\
 1,523518 \\
 \hline
 - 3,646024 \\
 + 0,696835 \\
 \hline
 - 2,949189 \\
 \hline
 2,085392
 \end{array}
 \quad
 \begin{array}{r}
 \hline
 - F_{45} = 470,521348 \\
 \hline
 \hline
 \end{array}$$

$$\begin{array}{r}
 22\frac{1}{2} \\
 \hline
 - 0,721020 \\
 0,107499 \\
 \hline
 - 0,828420 \cos \varphi \\
 \hline
 - 0,875750 \\
 - 0,765361 \\
 \hline
 - 1,641111
 \end{array}
 \quad
 \begin{array}{r}
 \hline
 - 4,500983 \\
 \hline
 - 1,5039357 \\
 1,4406287 \\
 \hline
 - 2,9445644 \\
 + 0,6561153 \\
 \hline
 - 2,2884495 \sin \varphi
 \end{array}
 \quad
 \begin{array}{r}
 + 0,4341046 \\
 2220107 \\
 \hline
 0,6561153 \\
 \hline
 - F_{22\frac{1}{2}} = 470,0,410278 \\
 \hline
 \hline
 \end{array}$$

$$\begin{array}{r}
 67\frac{1}{2} \\
 \hline
 - 1,010285 \\
 396667 \\
 \hline
 - 1,406952 \cos \varphi \\
 \hline
 - 0,5384166 \\
 0,4465971 \\
 \hline
 0,985014
 \end{array}
 \quad
 \begin{array}{r}
 \hline
 - 1,1428707 \\
 11720611 \\
 \hline
 - 1,2600768 \\
 + 0,7766838 \\
 \hline
 - 0,4833930 \sin \varphi
 \end{array}
 \quad
 \begin{array}{r}
 0,0452308 \\
 7314530 \\
 \hline
 - F_{67\frac{1}{2}} = 470,0,246254 \\
 \hline
 \hline
 \end{array}$$

$$\left(\frac{\partial F}{\partial a} \right)_0 \frac{1}{i} \left(\frac{1}{i}^{a-1} - \frac{1}{i}^{a+1} \right) = 1,249045 \quad \left(\frac{b_1}{N} + \frac{b_2}{N} \right) = 0,512880$$

$$\left(\frac{\partial F}{\partial a} \right)_0 = -470,0,881462$$

$$\left(\frac{\partial F}{\partial a} \right)_{\frac{\pi}{2}} \frac{1}{i} (11 - 11) = 0,658918 \quad \frac{\partial(11-11)}{\partial a} = -0,5222222$$

$$\left(\frac{\partial F}{\partial a} \right)_{\frac{\pi}{2}} = +470,0,586126$$

$$a=3 \quad b=l=1 \quad c=2 \quad \varphi = 22\frac{1}{2}$$

$$\begin{array}{r} - 0,092083 \\ \quad 020437 \\ \hline - 0,112520 \cos \varphi \end{array} \quad \begin{array}{r} - 0,593789 \\ \quad 222129 \\ \hline - 0,371660 \sin \varphi \end{array}$$

~~- 0,112520~~

$$\begin{array}{r} - 0,103955 \\ - 0,142228 \\ \hline - 0,246183 \end{array}$$

$$\underline{\underline{F_{22\frac{1}{2}} = -0,0615525 = -0,061546}}$$

$$\varphi = 45^\circ \quad \begin{array}{r} - 0,486792 \\ \quad 0237341 \\ \hline - 0,249451 \sin \varphi \end{array} \quad \begin{array}{r} - 0,130425 \\ \quad 042501 \\ \hline - 0,172926 \cos \varphi \\ \quad 249451 \\ \hline - 0,422377 \cos 45^\circ \\ - 0,2986656 \end{array} \quad \begin{array}{r} 21119 \\ 6,0528 \end{array}$$

$$\underline{\underline{F_{45} = -0,0746664}}$$

$$\varphi = 67\frac{1}{2} \quad \begin{array}{r} - 0,121929 \\ \quad 067533 \\ \hline - 0,189462 \cos \varphi \end{array} \quad \begin{array}{r} - 0,3854972 \\ \quad 02657967 \\ \hline - 0,1197005 \sin \varphi \end{array}$$

$$\begin{array}{r} - 0,0725038 \\ - 0,1105889 \\ \hline - 0,1830927 \end{array}$$

$$\underline{\underline{F_{67\frac{1}{2}} = -0,0457732}}$$

$$\left(\frac{\partial F}{\partial \varphi}\right)_0 \quad \left(\sqrt{\frac{a-l}{c}} - \sqrt{\frac{a+l}{c}}\right) = 0,213070 \quad \ln\left(\frac{1}{n} + \frac{1}{n}\right) = 0,159006$$

$$\frac{\partial F}{\partial \varphi_0} = -4/5 \cdot 0,186028$$

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$$\left(\frac{\partial F}{\partial \varphi}\right)_{\frac{\pi}{2}} \quad (|| - ||) = 0,0955505 \quad \frac{\partial (|| - ||)}{\partial a} = -0,1492525$$

$$\left(\frac{\partial F}{\partial \varphi}\right)_{\frac{\pi}{2}} = +4/5 \cdot 0,1224070$$

$$\frac{350 \sqrt{37.25 + 100}}{6(37.25 + 200)}$$

925

1125

$$\frac{21 \sqrt{1025}}{675} = \frac{7 \sqrt{1025}}{135}$$

$$\frac{240 \sqrt{26.16 + 100}}{5(26.16 + 200)} = \frac{48 \sqrt{516}}{616}$$

1,505,262

32,0756

224,1092

166,00681

58° 56' 9"

1,072,2910

162897

456

1,028,6245

0,220126

58° 56' 9"

$$\frac{26}{16} \frac{15}{6} \frac{26}{41} \frac{2271564}{51601666} = \frac{10902507}{179}$$

$$\frac{150 \sqrt{250}}{4.350} = \frac{1412}{1412}$$

$$\frac{1,201561}{15905975} = \frac{1590597}{22858955}$$

$$\frac{1,0297447}{67955} = \frac{1,0471976}{92084}$$

$$\frac{1,0364201}{2760} = \frac{1,0565423}{360}$$

1,0264201

59° 22' 57" x=4 G=1,6897277

1,0565423

60° 22' 7" x=5 G=1,770050 C=25

1,0286245

58° 56' 9" x=6 G=1,6600681

~~x=6 G=1,0286245~~

$$\sqrt{4,8^2} = 22,04$$

$$220,4 \sqrt{24,04 \cdot 14,44 + 100} = 220,4 \sqrt{447,1276} = 4,8 \cdot 547,1276$$

$$2,650442$$

$$1,225221$$

$$\sqrt{21,14568}$$

~~4464,84968~~

~~2626,2605~~

~~46604969~~

~~26262605~~

~~4662204~~

$$\sqrt{4,6^2} = 21,16$$

$$387,1926$$

$$2,587928$$

$$1,1292964$$

$$19,67723$$

$$201,6 \sqrt{22,16 \cdot 12,96 + 100}$$

$$4,6 \cdot 487,1926$$

$$39669296$$

$$22410906$$

$$38/10/262$$

$$240$$

$$289$$

$$28$$

$$120$$

$$\sqrt{479^2} = 22,9441$$

$$279^2 = 14,2641$$

$$442,92545$$

$$3,6472195$$

$$1,3236594$$

$$2106978$$

$$219,441 \sqrt{22,9441 \cdot 14,2641 + 100}$$

$$4,79 \cdot 543,92545$$

$$46225736$$

$$26054508$$

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$$4,81 \quad 23,1261$$

$$281 \quad 14,5161$$

$$450,36204$$

$$2,652562$$

$$1,1226781$$

$$21,22174$$

$$221,361 \sqrt{24,1261 \cdot 14,5161 + 100}$$

$$4,81 \cdot 550,26204$$

$$46976656$$

$$26472414$$

$$\log \sqrt{(a+1)^2 + b^2 + c^2} = 0,673959$$

$$1) \sqrt{(a^2+1)+b^2+c^2} = 4,720190$$

$$\log \sqrt{(a-1)^2 + b^2 + c^2} = 0,482840$$

$$2) \sqrt{(a-1)^2 + b^2 + c^2} = 3,039768$$

$$\log \sqrt{(b+1)^2 + a^2 + c^2} = 0,624724$$

$$3) \sqrt{(b+1)^2 + a^2 + c^2} = 4,214283$$

$$\log \sqrt{(b-1)^2 + a^2 + c^2} = 0,569212$$

$$4) \sqrt{(b-1)^2 + a^2 + c^2} = 3,709473$$

$$(\sqrt{1})^2 = 22,280185 \quad (\sqrt{2})^2 = 9,240185 \quad (\sqrt{3})^2 = 17,760185$$

$$(\sqrt{4})^2 = 13,760185$$

0,247952	0,247952 301030 0,548982 512218 0,035764 0,624724 0,411040 -1 14° 26' 54"	0,247952 0,512218 0,761170 301020 0,460140 624724 0,835416 -1 34° 23' 39"	0,247952 $\frac{\pi}{2}$
0	0,2443461 75621 2618 0,2521710	0,5924119 66904 1891 0,6002914	0,15707963 6002914 1,5707963 6002914 2,1710877 2521710

1,165173 1,026426 0,138737 0,069369 5,479384 3,709473 1,769911 4,214283 5,984194 0,1728721 0,1777005 0,961726 -1 69369 0,031095 0,492691 -2 262216 0,854907 -2 0,071599	0,857247 0,495904 0,357343 0,178672 0,6969473 3,709473 3,26 4,214283 7,474283 0,842200 0,872570 0,969630 1,78672 0,148302 0,121147 -1 262216 0,552263 -1 0,241478	1,2005828 0,2324127 0,6047857 2,0383812 2521710 1,7862102 1,786210 1,632257 3,418457 3,209 7853982 2,4236018
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