

$$mx + 3y = m^2 \quad : \quad (1)$$

$$2x + y = 12$$

$$, \quad m = 6$$

$$6x + 3y = 36, \quad 2x + y = 12 :$$

m

$$\begin{cases} mx + 3y = m^2 \\ 2x + y = 12 \rightarrow y = 12 - 2x \end{cases}$$

$$mx + 3(12 - 2x) = m^2$$

$$mx + 36 - 6x = m^2$$

$$x(m - 6) = m^2 - 36$$

$$(m - 6)x = (m - 6)(m + 6) \quad / : (m - 6) \leftarrow m \neq 6$$

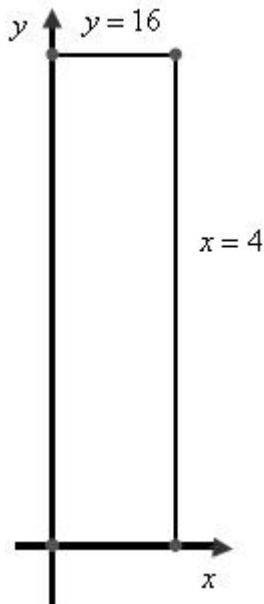
$$x = m + 6 \rightarrow y = 12 - 2(m + 6) = 12 - 2m - 12 = -2m$$

$$\boxed{(m + 6, -2m), \quad m \neq 6}$$

$m \neq 6 :$

$$, \quad m = 6 \quad (2)$$

m :



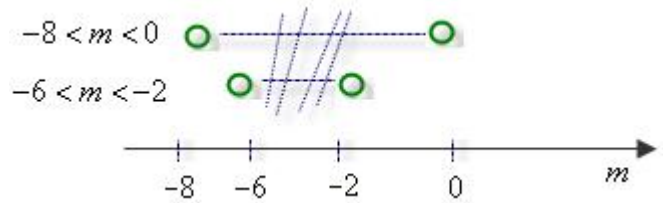
$$(m + 6, -2m), \quad m \neq 6 :$$

$$: \quad (\quad)$$

$$-6 < m < -2 : \quad , 0 < m + 6 < 4 \quad (1)$$

$$-8 < m < 0 \quad m < 0 \quad m > -8 : \quad , 0 < -2m < 16 \quad (2)$$

$: m \neq 6$,



$$-6 < m < -2 :$$

35005

11

$\cdot q$, a_1, a_2, a_3, \dots - I

$\cdot q_0$, $a_1, b_1, a_2, b_2, a_3, b_3, \dots$ - II

, II

a_1 - II

$a_2 \frac{a_2}{a_1} = q_0^2$, II

$\boxed{q = q_0^2}$ - $\frac{a_2}{a_1} = q$, I

$q = q_0^2$:

$S_{II} = 1.2S_I$:

:

$S_{II} = 1.2S_I$

$\frac{a_1}{1 - q_0} = \frac{1.2a_1}{1 - q} \quad /: a_1 > 0$

$\frac{1}{1 - q_0} = \frac{1.2}{1 - q_0^2}$

$1 - q_0^2 = 1.2(1 - q_0)$

$(1 - q_0)(1 + q_0) = 1.2(1 - q_0) \quad /: 1 - q_0 \neq 0$

$1 + q_0 = 1.2$

$\boxed{q_0 = 0.2}$

$q_0 = 0.2$:

.6.25 b_1, b_2, b_3, \dots

$\frac{b_2}{b_1} = \frac{b_1 q_0^2}{b_1} = q_0^2 = 0.2^2 = 0.04$:

. 0.04 ,

$\frac{b_1}{1 - 0.04} = 6.25$

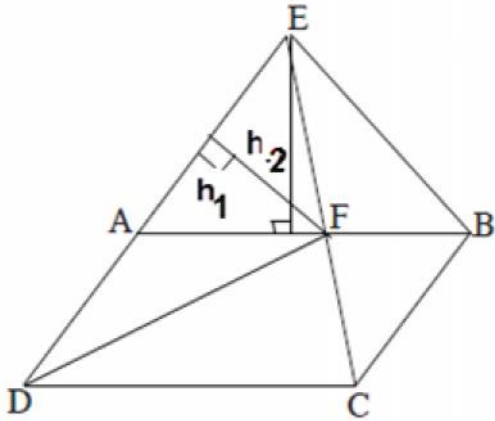
$b_1 = 6$

$\frac{b_1}{a_1} = 0.2 \rightarrow \frac{6}{a_1} = 0.2$

$\boxed{a_1 = 30}$

$a_1 = 30$:

"

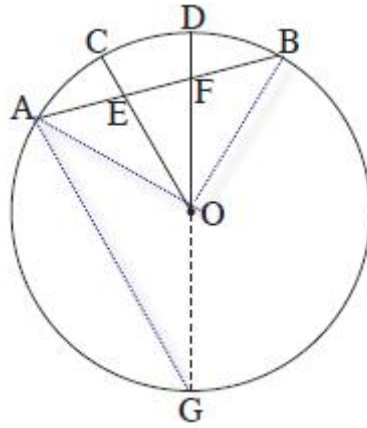


ABCD .1

$$\frac{BF}{FA} = \frac{AD}{AE} \quad \therefore "$$

$$S_{\triangle ADF} = S_{\triangle BEF} \quad (2) \quad \frac{S_{\triangle ADF}}{S_{\triangle AEF}} = \frac{AD}{AE} \quad (1).$$

	ABCD	2	1
	AB DC	3	2
$\triangle ADC$	$\frac{AE}{AD} = \frac{EF}{FC}$	4	3
	BC AD	5	2
2	$\frac{BF}{FA} = \frac{FC}{EF}$	6	5
	$\frac{BF}{FA} = \frac{AD}{AE}$	7	6,4
. . .			
	$h_1 \perp DE$	8	
,	$\frac{S_{\triangle ADF}}{S_{\triangle AEF}} = \frac{0.5AD \cdot h_1}{0.5AE \cdot h_1} = \frac{AD}{AE}$	9	8
(1) . . .			
	$h_2 \perp AB$	10	
	$S_{\triangle BEF} = 0.5 \cdot BF \cdot h_1$	11	10
	$S_{\triangle AFE} = 0.5 \cdot AF \cdot h_2$	12	10
	$\frac{S_{\triangle BEF}}{S_{\triangle AFE}} = \frac{BF}{AF}$	13	12,11
	$\frac{S_{\triangle BEF}}{S_{\triangle AFE}} = \frac{S_{\triangle ADF}}{S_{\triangle AEF}}$	14	13,9,7
	$S_{\triangle BEF} = S_{\triangle ADF}$	15	14
(2) . . .			



O .1
 $\widehat{AC} = \widehat{CD} = \widehat{DB}$.2
: "

$\Delta AEO \cong \Delta BFO$.

$\frac{AE}{FE} > 1$ (2) $\frac{AO}{FO} = \frac{AE}{FE}$ (1) .

EO || AG .

	O	3	1
	$\widehat{AC} = \widehat{CD} = \widehat{DB}$	4	2
	() $\sphericalangle AOC = \sphericalangle DOB$	5	4,3
	() $OA = OB$	6	3
ΔOAB	() $\sphericalangle OAE = \sphericalangle OBF$	7	6
	$\Delta AEO \cong \Delta BFO$	8	7,6,5
. . .			
	$\sphericalangle AOC = \sphericalangle COD$	9	4,3
ΔOAF	$\frac{AO}{FO} = \frac{AE}{FE}$	10	9
(1)			
OD ,F ' OD :	$OF < OD$	11	3
	$OA = OD$	12	3
	$OF < OA$	13	12,11
- .() , "	$\frac{OA}{OF} > 1$	14	13
	$\frac{AE}{FE} > 1$	15	14,10
(2)			
	$\sphericalangle AOC = \sphericalangle COD = \frac{1}{2} \sphericalangle AOD$	16	4,3
(AD)	$\sphericalangle AGO = \frac{1}{2} \sphericalangle AOD$	17	3

	$\angle AOD = \angle AGO + \angle OAG$	18	17, 16
	$\angle OAG = \frac{1}{2} \angle AOD$	19	18, 17
	$\angle OAG = \angle AOC$	20	16, 19
	$EO \parallel AG$	21	20
. . .			

() : ((1))'

((1) -) $\frac{AO}{FO} = \frac{AE}{FE}$

() $AO = OG$
 \Downarrow

() $\frac{OG}{FO} = \frac{AE}{FE}$
 \Downarrow

() $EO \parallel AG$

.6 - 3 :

3 -

6	5	4	3	2	1	המספר
0.2	0.2	0.2	0.1	0.2	0.1	ההסתברות

$$P(3) = 0.1, \quad P(6) = 0.2,$$

$$P(3 \cup 6) = 0.1 + 0.2 = 0.3,$$

3 -

. 0.3 :

, 5
 $k=2, n=5, () p=0.3$,

$$P_5(2) = \binom{5}{2} (0.3)^2 (1-0.3)^{5-2} = 10 \cdot (0.3)^2 (0.7)^3 = 0.3087$$

5 2 :

$$.0.3087 \quad 3 -$$

,0.3 3 -

.0.7 3 -

$$P = 0.3 \cdot 0.7^3 \cdot 0.3 = 0.03087$$

. 0.03087 3 -

6 (1) .

, (1, 5), (2, 4), (3, 3), (4, 2), (5, 1) :

$$\frac{1}{6}$$

, (0.2) 6

$$. (P = \frac{1}{6} \cdot 0.1 + \frac{1}{6} \cdot 0.2 + \frac{1}{6} \cdot 0.1 + \frac{1}{6} \cdot 0.2 + \frac{1}{6} \cdot 0.2 = \frac{2}{15}, \quad) P = \frac{1}{6} (1-0.2) = \frac{2}{15}$$

$$\frac{2}{15} :$$

3 - : (2)

, (3, 3) .6

$$P = \frac{\frac{1}{6} \cdot 0.1}{\frac{2}{15}} = 0.125$$

. 0.125 :

:

- S

- A

12 - - \bar{A}

17 - - B

$$P(A) = 0.3 \rightarrow P(\bar{A}) = 0.7$$

$$P(\bar{A}/B) = \frac{19}{30} \rightarrow P(A/B) = \frac{11}{30}$$

$$P(B/\bar{A}) = \frac{19}{42} \rightarrow P(\bar{B}/\bar{A}) = \frac{23}{42}$$

$$P(\bar{A}/B) = \frac{19}{30}$$

$$P(B/\bar{A}) = \frac{19}{42}$$

$$P(\bar{A}/B) = \frac{P(\bar{A} \cap B)}{P(B)}$$

$$P(B/\bar{A}) = \frac{P(B \cap \bar{A})}{P(\bar{A})}$$

$$\frac{19}{30} = \frac{19}{60} \cdot \frac{1}{P(B)}$$

$$P(B) = 0.5$$

$$\frac{19}{42} = \frac{P(B \cap \bar{A})}{0.7}$$

$$P(B \cap \bar{A}) = \frac{19}{60}$$

	\bar{A}	A	
0.5	$\frac{19}{60}$	$\frac{11}{60}$	17 - -B
0.5	$\frac{23}{60}$	$\frac{7}{60}$	12 - - \bar{B}
1	0.7	0.3	

.17

50% :

$$P(\bar{A}/B) = \frac{19}{30} \neq P(\bar{A}) = 0.7 :$$

- \bar{D} - D :

$P(D/A) = 0.92$, $P(\bar{D}/\bar{A}) = 0.92$:

$$\frac{P(D/A)}{P(\bar{D}/\bar{A})} = \frac{0.92}{0.08} = 11.5$$

$$\frac{P(A)}{P(\bar{A})} = \frac{0.3}{0.7} = \frac{3}{7}$$

$$R = 11.5 \cdot \frac{3}{7} = 4 \frac{13}{14}$$

$$P(A/D) = \frac{R}{1+R} = \frac{4 \frac{13}{14}}{1 + 4 \frac{13}{14}} = \frac{69}{83}$$

$$\frac{69}{83}$$