

$m \neq -2$  ,  $m \cdot y = (3m+6)x^2 + (2m+4)x + m-2$  **(1)** .

$a = 3m+6$ ,  $b = 2m+4$ ,  $c = m-2$

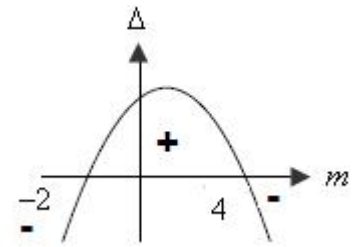
$\Delta > 0$

$(2m+4)^2 - 4(3m+6)(m-2) > 0 \rightarrow 4(m+2)^2 - 12(m+2)(m-2) > 0$

$4(m+2)((m+2) - 3(m-2)) > 0 \rightarrow 4(m+2)(m+2 - 3m+6) > 0$

$4(m+2)(8-2m) > 0$

$m = -2, m = 4$



$-2 < m < 4$  :

$x$  - **(2)**

$-2 < m < 4$  :

$m > -2$   $a = 3m+6$

:

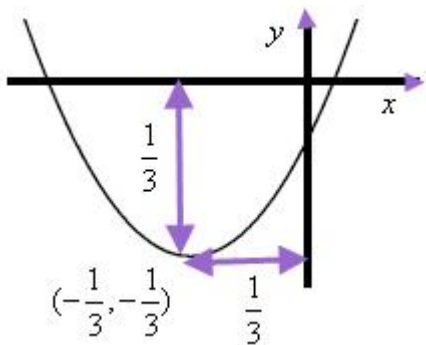
$-2 < m < 4$  ,  $x$  - **(1)** .

$x = -\frac{1}{3}$   $x$  -

$(-\frac{1}{3}, -\frac{1}{3})$

$-\frac{1}{3}$   $y$  - :

$(-\frac{1}{3}, -\frac{1}{3})$  **(2)**



$$-\frac{1}{3} = (3m+6)\left(-\frac{1}{3}\right)^2 + (2m+4)\left(-\frac{1}{3}\right) + m - 2$$

$$-\frac{1}{3} = \frac{3m+6}{9} - \frac{2m+4}{3} + m - 2 \quad / \cdot 9$$

$$-3 = 3m + 6 - 3(2m+4) + 9(m-2)$$

$$-3 = 3m + 6 - 6m - 12 + 9m - 18$$

$$-6m = -21 \quad / : (-6)$$

$$\boxed{m = 3.5}$$

$$m = 3.5 :$$

.  $n$  , 2 .

. 69 -

$n$

$$S_n = n \cdot a_{69}$$

$$\frac{n(\cancel{2}a_1 + \cancel{2}(n-1))}{\cancel{2}} = n \cdot (a_1 + 68 \cdot 2) \quad /: n \neq 0$$

$$a_1 + n - 1 = a_1 + 136$$

$$\boxed{n = 137}$$

.137

:

$$.a_1 = -30$$

$$a_n > 0$$

$$a_1 + (n-1)d > 0$$

$$-30 + 2(n-1) > 0$$

$$2(n-1) > 30$$

$$n-1 > 15$$

$$n > 16$$

$$a_{16} = 0 \quad - \quad 16 : ,$$

$$a_{17}$$

$$137 - 16 = 121 -$$

$$a_{17} = a_1 + 16d \rightarrow a_{17} = -30 + 16 \cdot 2$$

$$a_{17} = 2$$

$$S_{121} = \frac{121(2 \cdot 2 + 2 \cdot (121-1))}{2}$$

$$S_{121} = \boxed{14,762}$$

.14,762

:

(2,4,6 :

) 6

6 -

(1) .

$$a_{137} = a_1 + 136 \cdot d = -30 + 136 \cdot 2 = 242$$

.240

6 -

.240

,6

:

. 6 -

(2)

$$b_n = 240 \quad , \quad b_1 = 6, d = 6 :$$

6 -

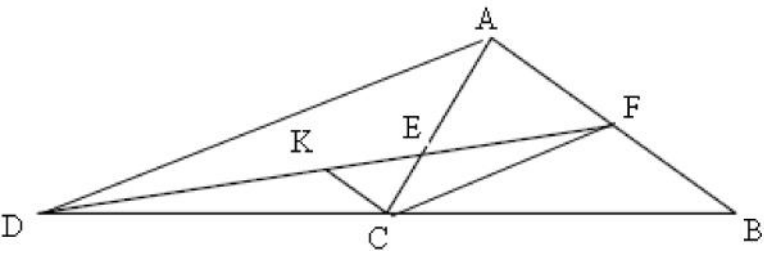
$$b_n \leq 240$$

$$6 + (n-1) \cdot 6 = 240 \quad \rightarrow \quad 6 + 6n - 6 = 240$$

$$6n \leq 240$$

$$n = 40$$

. 40 :



$AF = BF$  .1

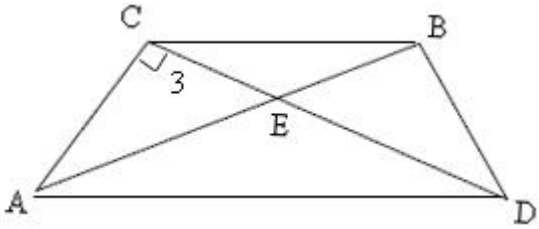
$CK \parallel AB$  .2

$\frac{EC}{AE} = \frac{1}{2}$  .3

$\frac{KC}{AF} = \frac{DC}{DB}$  (2)  $\frac{KC}{AF} = \frac{EC}{AE}$  (1) . : "

$CF \parallel AD$  .

	$CK \parallel AB$	4	2
2	$\frac{KC}{AF} = \frac{EC}{AE}$	5	4
(1) . . .			
	$AF = BF$	6	1
$\triangle DBF$ 1	$\frac{KC}{BF} = \frac{DC}{DB}$	7	4
	$\frac{KC}{AF} = \frac{DC}{DB}$	8	7,6
(2) . . .			
	$\frac{EC}{AE} = \frac{1}{2}$	9	3
	$\frac{DC}{DB} = \frac{EC}{EA}$	10	8,5
	$\frac{DC}{DB} = \frac{1}{2}$	11	10,9
	$DC = BC$	12	11
	$\triangle ADB$ $CF$	13	12,6
	$CF \parallel AD$	14	13
. . .			



$AE \cdot EB = CE \cdot ED$  .1

CB || AD .2 :

CE = " 3 .5  $\frac{AD}{CB} = \frac{5}{3}$  .4 AC ⊥ CE .3 :

AC (2) ED (1) . ΔAEC ≅ ΔDEB . ΔAED ~ ΔCEB . ΔAEC ~ ΔDEB . : "

	$AE \cdot EB = CE \cdot ED$	6	1
	$\frac{AE}{CE} = \frac{ED}{EB}$	7	6
	$\sphericalangle AEC = \sphericalangle DEB$	8	
	$\Delta AEC \sim \Delta DEB$	9	8,7
. . .			
	$\frac{AE}{ED} = \frac{CE}{EB}$	10	6
	$\sphericalangle AED = \sphericalangle CEB$	11	
	$\Delta AED \sim \Delta CEB$	12	11,10
. . .			
	CB    AD	13	2
2	$\frac{AE}{EB} = \frac{DE}{CE}$	14	13
	$AE \cdot CE = EB \cdot ED$	15	14
	$\frac{EB}{CE} = \frac{CE}{EB}$	16	15,6
	EB = CE	17	16
	$\frac{AE}{DE} = \frac{AC}{DB} = \frac{EC}{EB} = 1$	18	17,9
1	$\Delta AEC \cong \Delta DEB$	19	18,9
. . .			
	$\frac{AD}{CB} = \frac{5}{3}$	20	4

	$CE = 3$	<b>21</b>	<b>20</b>
<b>2</b>	$\frac{AD}{CB} = \frac{ED}{CE}$	<b>22</b>	<b>13</b>
	$\frac{5}{3} = \frac{ED}{3}$	<b>23</b>	<b>22, 21, 20</b>
	$ED = 5$	<b>24</b>	<b>23</b>
<b>(1) . . .</b>			
	$AE = ED = 5$	<b>25</b>	<b>24, 19</b>
	$AC \perp CE$	<b>26</b>	<b>3</b>
$\triangle ACE$	$AC = 4$	<b>27</b>	<b>26, 25</b>
<b>(2) . . .</b>			

∴

- $\angle EAD = \angle ECB$
- $\angle EAD = \angle EBC$
- ↓
- $\angle ECB = \angle EBC$
- ↓
- $EB = CE$
- $\angle ECA = \angle EBD$
- ↓
- $\triangle AEC \cong \triangle DEB$

..

35005

11

30 - 20 B , 10 A  
 .  
 .( )  
 .B

B , ( ) A

$$P = \frac{1}{2} \cdot 1 \cdot 1 + \frac{1}{2} \cdot \frac{20}{50} \cdot \frac{20}{50} + \frac{1}{2} \cdot \frac{30}{50} \cdot \frac{29}{49} = \frac{928}{1225}$$

$$\frac{928}{1225} :$$

.B A , (1) .

$$P = \frac{1}{2} \cdot 1 + \frac{1}{2} \cdot \frac{20}{50} = 0.7$$

$$0.7 :$$

5 (2)

$$P = 1 - 0.7^5 = 0.8319$$

$$0.8319 :$$

.(A ) B A .

$$\frac{8}{11}$$

.(A ) B A x -

$$\frac{20+x}{50+x} , 1 ,$$

$$\begin{aligned} \frac{8}{11} &= \frac{1}{2} \cdot 1 + \frac{1}{2} \cdot \frac{20+x}{50+x} \\ \frac{5}{22} &= \frac{20+x}{2(50+x)} \quad / \cdot 22(50+x) \end{aligned}$$

$$5(50+x) = 11(20+x)$$

$$250 + 5x = 220 + 11x$$

$$-6x = -30 \quad / : (-5)$$

$$\boxed{x=5}$$

$$\frac{8}{11}$$

$$5 :$$



( - S ) - N - S  
 - M  
 - M

$$P(M/N) = 0.8 \rightarrow P(\bar{M}/N) = 0.2$$

$$P(M/S) = 0.4 \rightarrow P(\bar{M}/S) = 0.6$$

$$P(N/M) = \frac{P(M/N) \cdot P(N)}{P(M)}, \quad P(S/M) = \frac{P(M/S) \cdot P(S)}{P(M)}$$

$$\frac{P(N/M)}{P(S/M)} = \frac{\frac{P(M/N) \cdot P(N)}{P(M)}}{\frac{P(M/S) \cdot P(S)}{P(M)}} = \frac{P(M/N) \cdot P(N)}{P(M/S) \cdot P(S)} = \frac{0.8 \cdot P(N)}{0.4 \cdot P(S)}$$

$$\frac{0.8 \cdot P(N)}{0.4 \cdot P(S)} > 1$$

$$2 \cdot \frac{P(N)}{P(S)} > 1$$

$$\frac{P(N)}{P(S)} > \frac{1}{2}$$

$$\cdot \frac{1}{2} -$$

$$P(N) = 0.4 \rightarrow P(S) = 0.6 :$$

40%

$$\frac{P(N)}{P(S)} = \frac{2}{3}$$

$$R = \frac{P(M/N)}{P(M/S)} \cdot \frac{P(N)}{P(S)} = \frac{0.8}{0.4} \cdot \frac{2}{3} = \frac{4}{3}$$

$$P(N/M) = \frac{R}{1+R} = \frac{\frac{4}{3}}{1+\frac{4}{3}} = \frac{4}{7} :$$

$$\cdot \frac{4}{7} :$$

..