

\_\_\_\_\_ .  
 - x  
 - y

10 - 14  
 260 20

"			
14x	14	x	
10y	10	y	

$$14x + 10y = 260 : \quad , \quad 260$$

$$x + y = 20 : \quad , \quad 20$$

:

$$\begin{cases} 14x + 10y = 260 \\ x + y = 20 \end{cases}$$

$$\boxed{y = 20 - x}$$

$$14x + 10 \cdot (20 - x) = 260$$

$$14x + 200 - 10x = 260$$

$$4x = 60 \quad / : 4$$

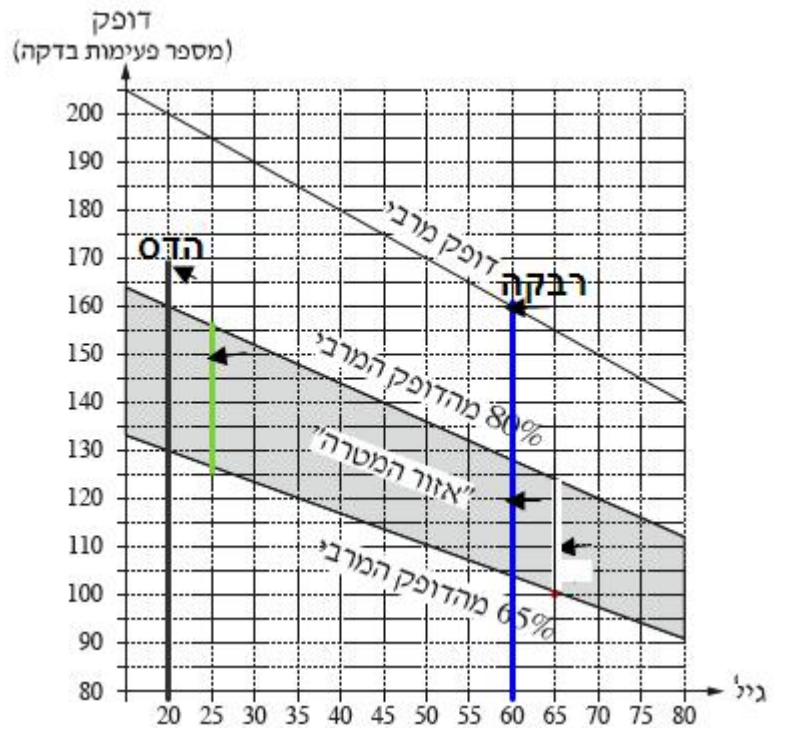
$$\boxed{x = 15}$$

$$y = 20 - 15$$

$$\boxed{y = 5}$$

15 :

5 .



.20 .

170 (1)

:

,20 - , (2)

160 - 130 :

.65 - 25 , , .

.25 150

.65 110

. 150 25 - :

. 110 65 -

.120 - .60 .

(1)

.160 :

.160 120 (2)

$$\frac{120}{160} = 0.75 = 75\%$$

75% - :

"

$$\boxed{d = -5}, \quad 5 - \quad \quad \quad , -5$$

$$a_1 = 70, \quad 70$$

16

$$a_n = a_1 + (n-1)d$$

$$a_{16} = a_1 + 15d$$

$$a_{16} = 70 + 15(-5)$$

$$a_{16} = -5$$

,

$$a_1 = 70$$

$$(-5), \quad :$$

$$a_1 = 840, \quad 40 - 8$$

$$S_{16} = 840 : 16$$

$$S_{16} = 840 \quad a_1$$

$$S_n = \frac{n[2a_1 + d(n-1)]}{2}$$

$$840 = \frac{16[2a_1 + (-5)(16-1)]}{2}$$

$$840 = 8(2a_1 - 5 \cdot 15)$$

$$840 = 8(2a_1 - 75)$$

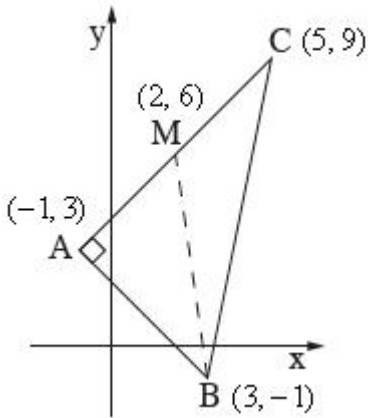
$$840 = 16a_1 - 600$$

$$-16a_1 = -600 - 840$$

$$-16a_1 = -1440 \quad /: (-16)$$

$$\boxed{a_1 = 90}$$

$$a_1 = 90 \quad :$$



- A(-1, 3) (-1, 3)
- B(3, -1) (3, -1)
- C(5, 9) (5, 9)

:

M

$$\left. \begin{aligned} x_M &= \frac{x_A + x_C}{2} = \frac{-1 + 5}{2} = \frac{4}{2} = 2 \\ y_M &= \frac{y_A + y_C}{2} = \frac{3 + 9}{2} = \frac{12}{2} = 6 \end{aligned} \right\} M(2, 6)$$

• M(2, 6) , C(5, 9) , B(3, -1) , A(-1, 3) :

, AC BM ..

$$m_{BM} = \frac{y_2 - y_1}{x_2 - x_1} = \frac{6 - (-1)}{2 - 3} = \frac{7}{-1} = -7$$

$$y - y_1 = m(x - x_1)$$

$$y - 6 = -7(x - 2)$$

$$y - 6 = -7x + 14$$

$$\boxed{y = -7x + 20}$$

•  $y = -7x + 20$  AC :

(1, 13)

$$13 = -7 \cdot 1 + 20$$

$$13 = 13 \text{ o.k.}$$

• (1, 13)  $y = -7x + 20$  :

• AB AM ,

$$d_{AB} = \sqrt{(-1 - 3)^2 + (3 - (-1))^2}$$

$$\boxed{d_{AB} = \sqrt{32}}$$

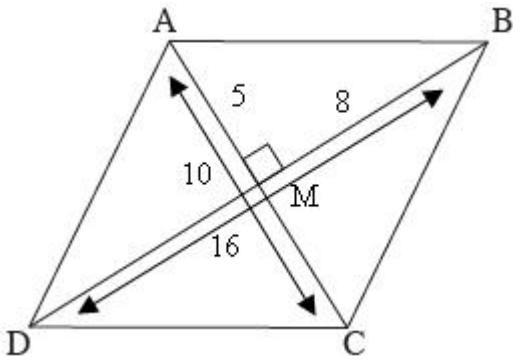
$$d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

$$d_{AM} = \sqrt{(-1 - 2)^2 + (3 - 6)^2}$$

$$\boxed{d_{AM} = \sqrt{18}}$$

$$S_{\Delta ABM} = \frac{AB \cdot AM}{2} = \frac{\sqrt{32} \cdot \sqrt{18}}{2} = 12 \rightarrow \boxed{S_{\Delta ABM} = 12}$$

• 12 ABM :



$$AM = \frac{AC}{2} = \frac{10}{2} = 5, \quad BM = \frac{BD}{2} = \frac{16}{2} = 8$$

∠AMB = 90° ,

∠ABM = ∠CBM : ,

ΔABM

$$\tan \angle ABM = \frac{AM}{BM}$$

$$\tan \angle ABM = \frac{5}{8}$$

$$\angle ABM = 32^\circ$$

$$\angle ABC = 2 \cdot 32^\circ = 64^\circ$$

∠ABC = 64° :

ΔABM

$$(AB)^2 = (AM)^2 + (BM)^2$$

$$(AB)^2 = 5^2 + 8^2$$

$$(AB)^2 = 89$$

$$AB = \sqrt{89} = 9.434$$

$$\sqrt{89} \cdot 4 = \text{ " } 37.74$$

∠ABC = 64° :

.  $N = 36$  , 36 .

$$\frac{a}{b} = \frac{x}{y}$$

$x : y = b - a$

, 4:5

**לכן:**  $\frac{\text{מספר בונים}}{\text{מספר בנות}} = \frac{4}{5} = \frac{4x}{5x}$

- 5x , - 4x :

:

$$4x + 5x = 36$$

$$\Leftrightarrow 9x = 36 \quad /:9$$

$$\Leftrightarrow x = 4$$

$(5x = 5 \cdot 4 = 20)$  20

$(4x = 4 \cdot 4 = 16)$  16

. 20 - 16 :

:

"	150	160	- x
N = 36	20	16	- f

1

:

$$1 \bar{x} = \frac{x_1 f_1 + x_2 f_2 + \dots + x_n f_n}{N} = \frac{160 \cdot 16 + 150 \cdot 20}{36} = \frac{5,560}{36} = 154.44$$

1 . " 1154.44 :