

٢٠

فاصله متقی

نیمه نام فضا

تکلیف ١٧

8 $y = -\frac{1}{2}x + b \xrightarrow{A|k} 1 + b = k \rightarrow b = k - 1$ (٢) (١)

9 $y = -\frac{1}{2}x + k - 1 \xrightarrow{B|m} -2 + k - 1 = m \rightarrow k - m = 3$

10 $AB = \sqrt{\Delta x^2 + \Delta y^2} \Rightarrow \sqrt{(-2-1)^2 + (k-m)^2} = \sqrt{9+9} = \sqrt{18} \Rightarrow S = AB^2 = 18$

12 $AB \parallel CD \Rightarrow m_{AB} = m_{CD} \Rightarrow \frac{3}{-2} = \frac{-3}{2x+1} \Rightarrow 2x+1 = 6 \Rightarrow x = \frac{5}{2}$  (٢)

13 $AB \perp AC \Rightarrow$ شیب قائمه و شیب $\Rightarrow -\frac{3}{2} = \frac{-2}{1-y} \Rightarrow -3 \times \frac{3}{2} = -2 \times (y-1) \Rightarrow y = 3$ (٢)

15 $C \left| \frac{5}{2} \right. , D \left| \frac{-5}{2} \right. \Rightarrow AB = \sqrt{9+4} = 5 / BC = \sqrt{4+\frac{9}{4}} = \frac{5}{2} \Rightarrow 2P = 2(AB+BC) = 15$

17 $m = \tan 45^\circ = \sqrt{3} \Rightarrow 2mx + (m^2 - 1)y = 3 \Rightarrow \frac{-2m}{m^2 - 1} = m = \sqrt{3}$ (٣)

18 $\sqrt{3}m^2 + 2m - \sqrt{3} = 0 \rightarrow m_{\text{خواهش}} = \frac{\sqrt{\Delta}}{|a|} = \frac{\sqrt{4+12}}{\sqrt{3}} = \frac{4\sqrt{3}}{\sqrt{3}} = 4$ (٢)

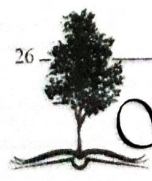
20 $m_{BC} = \frac{11-3}{2-3} = 8 \Rightarrow 2x + 0 = y \xrightarrow{B|r} 2 + 0 = 3 \Rightarrow 0 = -3$ (٢) (٤)

21 $\hookrightarrow y - 2x + 3 = 0$

22 $AH = \frac{|-2x + y + 3|}{\sqrt{1+4}} = \frac{|-2+9+3|}{\sqrt{5}} = \frac{10}{\sqrt{5}} \times \frac{\sqrt{5}}{\sqrt{5}} = 2\sqrt{5}$

24 $AB: 2y + 4x = 14$
25 $BC: 2y - 4x = -14$ $\rightarrow 11x = 33 \Rightarrow x = 3, y = 1$ (٢) (٥)

26 $d = \frac{|4y - 2x - 14|}{\sqrt{16+4}} = \frac{|4-6-14|}{\sqrt{20}} = \frac{16}{\sqrt{20}} = \frac{4\sqrt{10}}{5}$



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معمولاً

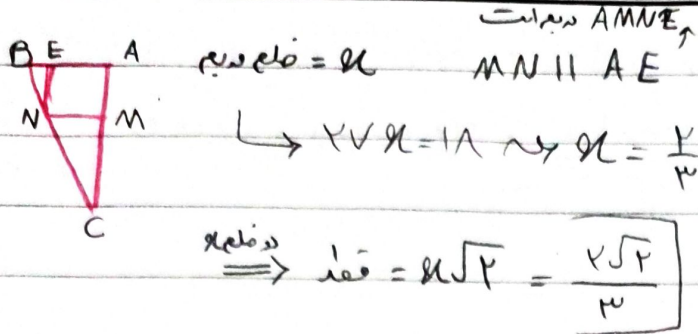
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$$\frac{CM}{AC} = \frac{MN}{AB} \Rightarrow \frac{4-x}{4} = \frac{x}{8}$$

(3)

$$ay - x = a - 1 \Rightarrow \frac{1}{a} = a \Rightarrow a^2 = 1 \Rightarrow a = \pm 1$$

(2)

(1)

$$\rightarrow a = 1 \Rightarrow y = x, y = x + 1 \xrightarrow{1} x = 1 + 1 \checkmark \text{ ق ق}$$

$$\rightarrow a = -1 \Rightarrow y = -x + 2, y = -x + 1 \xrightarrow{1} x = -1 + 2x, x = -1 + 1 \times \text{ق ق ق}$$

$$y - x - 1 = 0, y - x = 0$$

$$\Rightarrow \frac{|c - c'|}{\sqrt{a^2 + b^2}} = \frac{1}{\sqrt{2}} = \frac{\sqrt{2}}{2} \Rightarrow \omega = \sqrt{x^2 + y^2} \Rightarrow \left(\frac{\sqrt{2}}{2}\right)^2 + x^2 = 2\omega$$

$$x = \frac{v}{\sqrt{2}} = \frac{v\sqrt{2}}{2} \Rightarrow S = \frac{v\sqrt{2}}{2} \times \frac{\sqrt{2}}{2} = \frac{v}{2} = \boxed{1, 2}$$

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

(15)

$$d = \frac{|15 - 11|}{\sqrt{1 + 9}} = \frac{4\sqrt{10}}{10} \quad m_{AC} = -3 \Rightarrow y = -3(x - 5) = -3x + 15$$

(3)

$$\rightarrow \frac{x}{3} - \frac{1}{3} = -3x + 15 \Rightarrow 1 \cdot x = 3 \cdot 15 \Rightarrow x = 3 \cdot 15, y = 0, 9$$

$$\begin{bmatrix} 3 & 15 & 1 \\ 0 & 9 & 0 \\ 1 & 1 & 1 \end{bmatrix} = 0, 9 - 3 \cdot 15 - 0 = -2, 15 \Rightarrow S = \frac{1}{2} \times 3 \cdot 15 = 1, 15$$

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نہیں لکھنا

$$m = \frac{b-a}{-\frac{1}{r} + \frac{1}{r}} = \sqrt{r} \rightarrow b-a = \frac{\sqrt{r}}{r} \quad a = \sqrt{\frac{(x_A - x_B)^2 + (y_A - y_B)^2}{\frac{1}{r} - \frac{1}{r}}} \quad (9)$$

$$\rightarrow a = \sqrt{\frac{r}{r^2}} = \frac{r}{r} = \frac{1}{r} \rightarrow \frac{1}{r} = \frac{\sqrt{r}}{r}$$

$$O: A \text{ موعی} = r = \sqrt{(x-0)^2 + (y-0)^2} = a$$

$$m_{OA} = \frac{r}{r} \rightarrow m_L = -\frac{r}{r} \text{ , } m_{L'} = \frac{r}{r} \Rightarrow OA: y = \frac{r}{r}x, L' = \frac{r}{r}x + C \quad (1)$$

$$L': OA \text{ موعی} = r = a \rightarrow \frac{C}{\sqrt{1 + \frac{r^2}{r^2}}} = \frac{rC}{a} = a \rightarrow C = \frac{ra}{r}$$

$$L': y = \frac{rx}{r} + \frac{ra}{r} \text{ , } C = y + r = \frac{r}{r}(x+r) \Rightarrow y = -\frac{rx}{r} - \frac{ra}{r}$$

$$\rightarrow \left(\frac{rx_B}{r} + \frac{ra}{r} = -\frac{rx_B}{r} - \frac{ra}{r} \right) \times 1 \Rightarrow 1 \cdot x_B + a = -x_B - a$$

$$\rightarrow x_B = -a \text{ , } y_B = -\frac{ra}{r} + \frac{ra}{r} = -1 \rightarrow x_B \times y_B = a$$