

18, 5

Subject

Date

عرفان حقیقہ یا زدم سر A

$$\frac{m-k}{r+2} = -\frac{1}{2} \Rightarrow m-k = -3$$

(2) ✓

$$AB = \sqrt{4^r + (\cancel{m-k})^r} \Rightarrow \sqrt{25}$$

مساقت مربع $AB^2 = 25$ ✓

$$AB = CD \Rightarrow AB = \sqrt{14 + 9} = \sqrt{25} = 5$$

12

(2)

$$CD = \sqrt{(n+1)^2 + 9} = 5 \Rightarrow (n+1)^2 = 14$$

$$n = \frac{m}{r}$$

نسب B_c با B بر AB عمود باشد

$$AB \cdot B_c = 0 \Rightarrow r \left(\frac{m}{r} - 3 \right) + (-3)(y-1) = 0$$

$$y = -1 \Rightarrow -c = \left(\frac{m}{r} - 1 \right)$$

$$B_c = \sqrt{\left(\frac{m}{r} - 3 \right)^2 + (-1-1)^2} = \sqrt{4, 25} = 5, 5$$

$$12: r(5 + 5, 5) = 15$$

$$\text{نسب} : \tan \phi = \frac{-r_m}{m^r - 1} = \sqrt{r} \quad (r) \quad /r$$

$$\Rightarrow \sqrt{r} m^r = \sqrt{r} = -r_m \Rightarrow \sqrt{r} m^r + r_m - \sqrt{r} = 0$$

$$\alpha - \beta = \frac{\sqrt{\Delta}}{|a|} \Rightarrow \frac{r\sqrt{r}}{r} \quad \checkmark$$

$$\text{نسب } B_c \Rightarrow \frac{11-r}{V-r} = r \Rightarrow \text{نسب } A_H = \frac{1}{r} \quad (r) \quad /r$$

$$A_H = y - 9 = -\frac{1}{r}(n-1) \Rightarrow y = \frac{-n}{r} + \frac{19}{r}$$

$$B_c = y - r = r(n-r) \Rightarrow y = rn - r$$

$$\begin{cases} ry = -n + 19 \\ y = rn - r \end{cases} \Rightarrow \begin{cases} ry = -n + 19 \\ ry = rn - r \end{cases} \Rightarrow n = 0 \quad y = V$$

$H = (2, V)$

$$A_H = \sqrt{(0-1)^r + (V-9)^r} = \sqrt{r} \quad \checkmark$$

$$\begin{cases} r_y - r_m = 1V \\ r_y - v_m = -19 \end{cases} \Rightarrow \begin{cases} r_y - r_m = 1V \\ r_y - 1r_m = -19 \end{cases} \quad \begin{matrix} n = \omega & y = 1/\omega \\ C = (1/\omega) \end{matrix}$$

(2)

$$\begin{cases} y + r_m = V \\ r_y - v_m = -19 \end{cases} \Rightarrow \begin{cases} r_y + r_m = 1r \\ r_y - v_m = -19 \end{cases} \quad \begin{matrix} n = r & B = 1 \\ B = (r/1) \end{matrix}$$

$$\begin{cases} r_y - r_m = 1V \\ y + r_m = V \end{cases} \Rightarrow \begin{cases} r_y - r_m = 1V \\ r_y + 1r_m = 1r \end{cases} \quad \begin{matrix} n = 1 & y = \omega \\ A = (1/\omega) \end{matrix}$$

$$PH = \frac{an + bn + c}{\sqrt{a^2 + b^2}} = \frac{r}{\omega}$$

$$m = \frac{-c}{r} = -1 \quad y = -1n - c \quad \text{معادله خط}$$

(2)

$$\begin{cases} n \\ -1n - c \end{cases} \Rightarrow \begin{matrix} \text{مطلوبه} \\ \text{خط با راس} \\ \text{مربع} \end{matrix} \quad n = -1n - c \Rightarrow n = \frac{-r}{r} \quad y = \frac{-r}{r}$$

$$\text{قطر} = \sqrt{\left(\frac{-r}{r}\right)^2 + \left(\frac{-r}{r}\right)^2} = \sqrt{\frac{1}{9}} \Rightarrow \frac{r\sqrt{2}}{r}$$

(۷)

$$\begin{aligned} ay - n &= a - 1 \\ y - an &= 1 \end{aligned} \quad \left. \begin{array}{l} \text{دو خط موازی} \\ \Rightarrow \frac{a}{1} = \frac{1}{a} \neq \end{array} \right\}$$

(۲)

$$a^2 = 1 \Rightarrow a \begin{cases} 1 \\ -1 \end{cases} \quad \left. \begin{array}{l} \checkmark \\ \text{مختصات نقطه} \\ \text{در آن جواب تغییر} \end{array} \right\} \begin{aligned} y - n &= 0 \\ y - n &= 1 \end{aligned}$$

$$\text{فاصله دو خط موازی} = \frac{1}{\sqrt{2}} \Rightarrow \frac{\sqrt{2}}{2} \quad \text{فیناغرد} \Rightarrow \left(\frac{\sqrt{2}}{2}\right)^2 + (0)^2 = 2\omega$$

$$\text{دایره} = \frac{\sqrt{2}}{2}$$

$$\text{مساحت} : \frac{\sqrt{2}}{2} \times \frac{\sqrt{2}}{2} = \frac{1}{2} \quad \checkmark$$

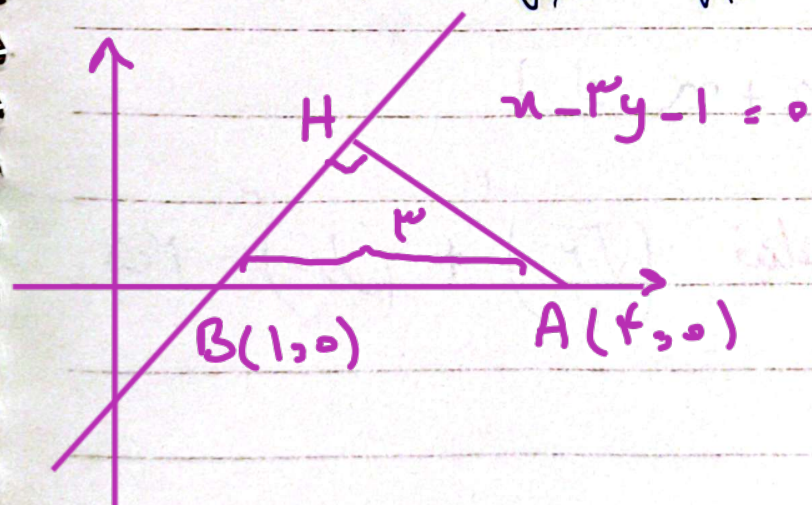
$$d = \frac{|1 \times 4 + (-3 \times 0) - 1|}{\sqrt{1^2 + (-3)^2}} = \frac{3}{\sqrt{10}} \checkmark$$

(1.5)

چون پايہ مثلث همان $x - 3y - 1 = 0$ است، ارتفاع مثلث هم همان فاصله تاخط است

$$S = \frac{1}{2} \times \frac{3}{\sqrt{10}} \times \frac{3}{\sqrt{10}} = \frac{9}{20}$$

سر



$$|AH| = \frac{|4 - 0 - 1|}{\sqrt{9 + 1}} = \frac{3}{\sqrt{10}}$$

$$\frac{9}{10} (AH)^2 + (BH)^2 = (AB)^2 \rightarrow BH = \frac{9}{\sqrt{10}}$$

$$S_D = \frac{9}{\sqrt{10}} \times \frac{3}{\sqrt{10}} \times \frac{1}{2} = \frac{27}{20} = 1.35$$

tips

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$$m = \sqrt{\mu} = \frac{\Delta y}{\Delta x}$$

$$\Delta y = \sqrt{\mu} \Delta x$$

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(9)

$$\Delta x = x_2 - x_1 = -\frac{1}{\mu} - \left(-\frac{1}{\mu}\right) = \frac{1}{\mu}$$

$\Rightarrow \Delta y = \frac{\sqrt{\mu}}{\mu}$

طول وتر = $\sqrt{\Delta x^2 + \Delta y^2} \Rightarrow \sqrt{\left(\frac{\sqrt{\mu}}{\mu}\right)^2 + \left(\frac{1}{\mu}\right)^2} = \frac{1}{\mu}$

$$\sqrt{\mu} \times \frac{1}{\mu} = \left(\frac{\sqrt{\mu}}{\mu}\right) \checkmark$$

طول قطر برابر $\sqrt{\mu}$ برابر طول ضلع است

$$r = \sqrt{(-2)^2 + (-3)^2} = 5$$

(2) (1.

$$2x + 3y = -20 \Rightarrow m = -\frac{2}{3} \Rightarrow \text{نسبت ضامور} \quad m' = \frac{3}{2}$$

$$\text{معادله ضامور: } y = \frac{3}{2}x + c \quad \text{فاصله از مبدأ} \Rightarrow \frac{|c|}{\sqrt{\frac{3^2}{2^2} + 1^2}} = 5 \Rightarrow$$

مضربان برابر 5 است

$$c = \frac{20}{2} \Rightarrow \left\{ \begin{array}{l} 2x + 3y = -20 \\ y = \frac{3}{2}x + \frac{20}{2} \end{array} \right. \Rightarrow$$

نقطه تقاطع

$$\left\{ \begin{array}{l} 2x + 3y = -20 \\ \frac{3}{2}x - y = -\frac{20}{2} \end{array} \right. \Rightarrow \left\{ \begin{array}{l} 2x + 3y = -20 \\ \frac{3}{2}x - y = -10 \end{array} \right. \Rightarrow x = -4, y = 1$$

✓ $-4 \times 1 = -4$ نقطه بر خط