

$$AB = \frac{\Delta y}{\Delta x} = \frac{m-k}{4} = \frac{1}{4} \rightarrow m-k = 1$$

سوال ۱)

$$AB = \sqrt{\Delta x^2 + \Delta y^2} = \sqrt{4^2 + 1^2} = \sqrt{17}$$

$$x_A + y_C = x_B + y_D$$

سوال ۲)

$$-1 + n = 3 - 1 - n \rightarrow 2n = 3 \rightarrow n = \frac{3}{2}$$

$$AB = \sqrt{9 + 16} = 5$$

$$m = \tan \theta = \frac{1}{\sqrt{3}} \rightarrow m = \frac{1}{\sqrt{3}}$$

$$\frac{1}{m} = \sqrt{3} \rightarrow m = \frac{1}{\sqrt{3}}$$

$$\sqrt{3}m^2 + 4m - \sqrt{3} = 0$$

$$m'^2 + 4m' - 3 = 0$$

$$(m' + 3)(m' - 1) = 0$$

$$m = \frac{1}{\sqrt{3}} \rightarrow m' = -3$$

$$m_{BC} = \frac{\Delta y}{\Delta x} = \frac{11-3}{4-2} = 4$$

$$AH = \frac{|9-2+3|}{\sqrt{50}} = \frac{10}{\sqrt{50}} = \frac{1}{\sqrt{5}}$$

$$AH = \frac{|ax+by+c|}{\sqrt{a^2+b^2}}$$

$$\begin{cases} y + 2x = 7 \\ 3y - 7x = 19 \end{cases} \Rightarrow \begin{cases} -2y - 4x = -14 \\ 3y - 7x = 19 \end{cases} \Rightarrow \begin{cases} -2y - 4x = -14 \\ 11y - 11x = 23 \end{cases}$$

$$-11x = -33 \rightarrow x = 3, y = 1$$

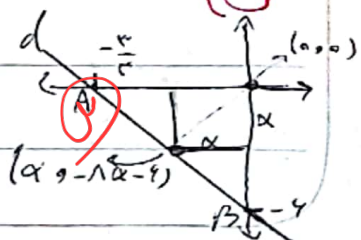
$$BH = \frac{|a+by+c|}{\sqrt{a^2+b^2}} = \frac{|1-9-14|}{\sqrt{50}} = \frac{12}{\sqrt{50}}$$

$$m = \frac{0+4}{-1-3} = -1 \rightarrow y = -x + b \rightarrow 4 = -(-1) + b \rightarrow b = 3 \rightarrow y = -x + 3$$

$$-1 \cdot x - 4 = 0 \rightarrow x = -4$$

$$9x^2 - 4 \rightarrow x = \frac{2}{3} \rightarrow y = \frac{2}{3}$$

$$= \sqrt{\Delta x^2 + \Delta y^2} = \sqrt{\left(\frac{2}{3}\right)^2 + \left(\frac{2}{3}\right)^2} = \frac{2}{3}\sqrt{2}$$



$$m \Rightarrow \frac{1}{a} z \frac{a}{1} \rightarrow a^2 z \rightarrow a z + 1$$

(5)

$$a z \rightarrow y z + 1, y z \rightarrow n \xrightarrow{\text{نقطه (1,2) یا (2,1) منبسط}} \sqrt{2} z + 1 \rightarrow a z$$

$$a z \rightarrow y z + 1, y z \rightarrow n + 1 \xrightarrow{(1,2)} \sqrt{2} z - 1 + 1 \rightarrow \sqrt{2} z - 1 + 1 \rightarrow \sqrt{2} z$$

(5)

$$\frac{|c-c'|}{\sqrt{a^2+b^2}} = \frac{|0+1|}{\sqrt{2}} = \frac{\sqrt{2}}{2}$$

$$\sqrt{2} z = \sqrt{\frac{2}{2}} = \frac{\sqrt{2}}{2}$$

$$\sqrt{2} z = \sqrt{\frac{2}{2}} = \frac{\sqrt{2}}{2} \rightarrow \sqrt{2} z = \frac{\sqrt{2}}{2} \rightarrow z = \frac{1}{2}$$

$$g = \frac{1}{n} - \frac{1}{p} \quad m a c z = -3 \Rightarrow y z = -3(n-4) \Rightarrow y = -3n + 12$$

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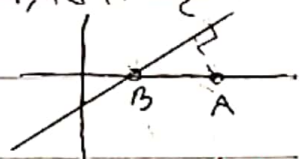
$$-3n + 12 = \frac{1}{n} - \frac{1}{p} \Rightarrow \frac{1}{p} = \frac{1}{n} - 3n + 12 \Rightarrow n = 3, p = 19 \quad y = 19$$

نقطه بر خط از اینجاست
نقطه (1,2) و (2,1) در خط است

$$A C = \sqrt{(1-3)^2 + (2-0)^2} = \sqrt{4+4} = \sqrt{8} = 2\sqrt{2}$$

(5)

$$S = \frac{AB \times BC}{r} = \frac{2\sqrt{2} \times 2\sqrt{2}}{2} = 4$$



$$m A B = \frac{a-b}{-\frac{1}{r} + \frac{1}{p}} = \sqrt{2} \rightarrow a-b = \frac{\sqrt{2}}{2}$$

(5)

$$A B = \sqrt{0n^2 + 0y^2} = \sqrt{\frac{1}{r^2} + \frac{1}{p^2}} = \frac{1}{r}$$

(5)

$$S = \left(\frac{r}{4}\right)^2 \times \frac{4}{r^2} = \frac{r^2}{4} \rightarrow \left(\frac{r}{4}\right)^2 = \frac{r^2}{4} \rightarrow \frac{r}{4} = \frac{r}{2} \rightarrow r = 2$$

$$z = \frac{\sqrt{2}}{2}$$

$$m = \frac{dy}{dx} = \frac{0+2}{0+2} = 1 \quad m a m e z = -1 \rightarrow m f z = -\frac{2}{r} \rightarrow m f z = \frac{2}{r}$$

(سوال)

$$c \text{ باشد : } y + 2 = -\frac{2}{r}(n+4) \rightarrow y = -\frac{2}{r}n - \frac{10}{r}$$

(5)

$$\left(-\frac{2}{r}n - \frac{10}{r}\right)^2 + n^2 = 20 \rightarrow n^2 + 4n + 20 = 20 \rightarrow n^2 + 4n = 0$$

$$y = -\frac{2}{r}n - \frac{10}{r} \rightarrow y = \frac{2}{r}n + \frac{10}{r}$$

$$-\frac{2}{r}n - \frac{10}{r} = \frac{2}{r}n + \frac{10}{r} \rightarrow -4n = 20 \rightarrow n = -5$$

$$\frac{20}{12}n = -\frac{10}{12} \rightarrow n = -1 \quad y = -1$$

$$n y \rightarrow (-1)(-1) = 1$$

$$(-4)^2 + (-4)^2 = 32$$

$$r = 0$$