

نام و نام خانوادگی: جبارک باباییان پاسخنامه تشریحی تکلیف شماره ۱۷... کلاس: پانزدهم (فصل دوم) B

درک خطای: $-\frac{1}{r}$ $B \begin{vmatrix} r \\ m \end{vmatrix}$ $A \begin{vmatrix} -r \\ k \end{vmatrix}$ B, A (بررسی کنید صحت خط)

if $m_{AB} = -\frac{1}{r} \Rightarrow \frac{m-k}{r-k} = -\frac{1}{r} \Rightarrow m-k = -r$
 $m = -r+k$

$A \begin{vmatrix} -r \\ k \end{vmatrix} B \begin{vmatrix} r \\ -r+k \end{vmatrix}$

$AB = \sqrt{(4)^2 + (-3)^2} = \sqrt{16+9}$
 $\sqrt{25} = 5$
 $8 = (5\sqrt{2})^2 = 50$

$A \begin{vmatrix} -1 \\ r \end{vmatrix} B \begin{vmatrix} r \\ 1 \end{vmatrix} C \begin{vmatrix} x \\ y \end{vmatrix} O \begin{vmatrix} -1-x \\ y+r \end{vmatrix}$

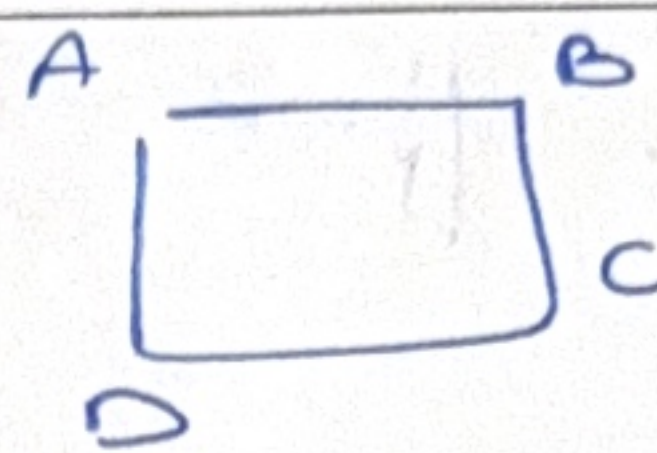
$m_{AB} = m_{CO} \Rightarrow \frac{r}{-r} = \frac{-r}{r+1} \Rightarrow r+1 = r \Rightarrow r = \frac{r}{r}$

$m_{AB} \times m_{BC} = -1 \Rightarrow \frac{r}{-r} \times \frac{1-y}{r} = -1 \Rightarrow y = -1$

$C \begin{vmatrix} r \\ -1 \end{vmatrix}$

$AB = \sqrt{14+9} = 5$
 $BC = \sqrt{9+4} = \frac{5}{r}$

$P = r \left(5 + \frac{5}{r} \right) \Rightarrow P = 15$



$2mx + (m^2 - 1)y = 2$

این خط بر روی m است. این خط به x موازی است. y را حذف کنید.

$\tan \theta = \frac{y}{x} \Rightarrow \frac{y}{x} = \sqrt{2}$

$\frac{y}{x} = \frac{-a}{b} \Rightarrow x = \frac{-a}{b} y \Rightarrow \frac{-2m}{m^2-1} = \sqrt{2} \Rightarrow \sqrt{2}m^2 - \sqrt{2} = -2m$
 $\Delta = 4 + 4\sqrt{2} \times \sqrt{2} = 12$

$m = \frac{-2 \pm \sqrt{12}}{2\sqrt{2}} \Rightarrow 1) \frac{-2 + \sqrt{12}}{2\sqrt{2}}, 2) \frac{-2 - \sqrt{12}}{2\sqrt{2}} = \frac{\sqrt{2}}{2} \Rightarrow \frac{-2}{\sqrt{2}} - \frac{1}{\sqrt{2}} = \frac{4}{\sqrt{2}} \Rightarrow \frac{-4\sqrt{2}}{2} = -2\sqrt{2}$

$A \begin{vmatrix} 1 \\ 9 \end{vmatrix} B \begin{vmatrix} r \\ r \end{vmatrix} C \begin{vmatrix} u \\ 11 \end{vmatrix}$

BC موازی A است

AH موازی BC است

$m_{BC} = \frac{11-r}{u-r} = \frac{1}{r} = r$

$y = rx + b \xrightarrow{r} r = 4+b \Rightarrow b = -r$
 $y = rx - r$

$\frac{y-rx+r}{\sqrt{1+r^2}} = \frac{1}{\sqrt{2}} \rightarrow \frac{1}{\sqrt{2}} \times \frac{\sqrt{2}}{\sqrt{2}} = \frac{1 \cdot \sqrt{2}}{2} = \frac{\sqrt{2}}{2}$

$AB: y+2x=5 \quad AC: 4y-2x=14 \quad BC: 4y-5x=-19$

BH = ?

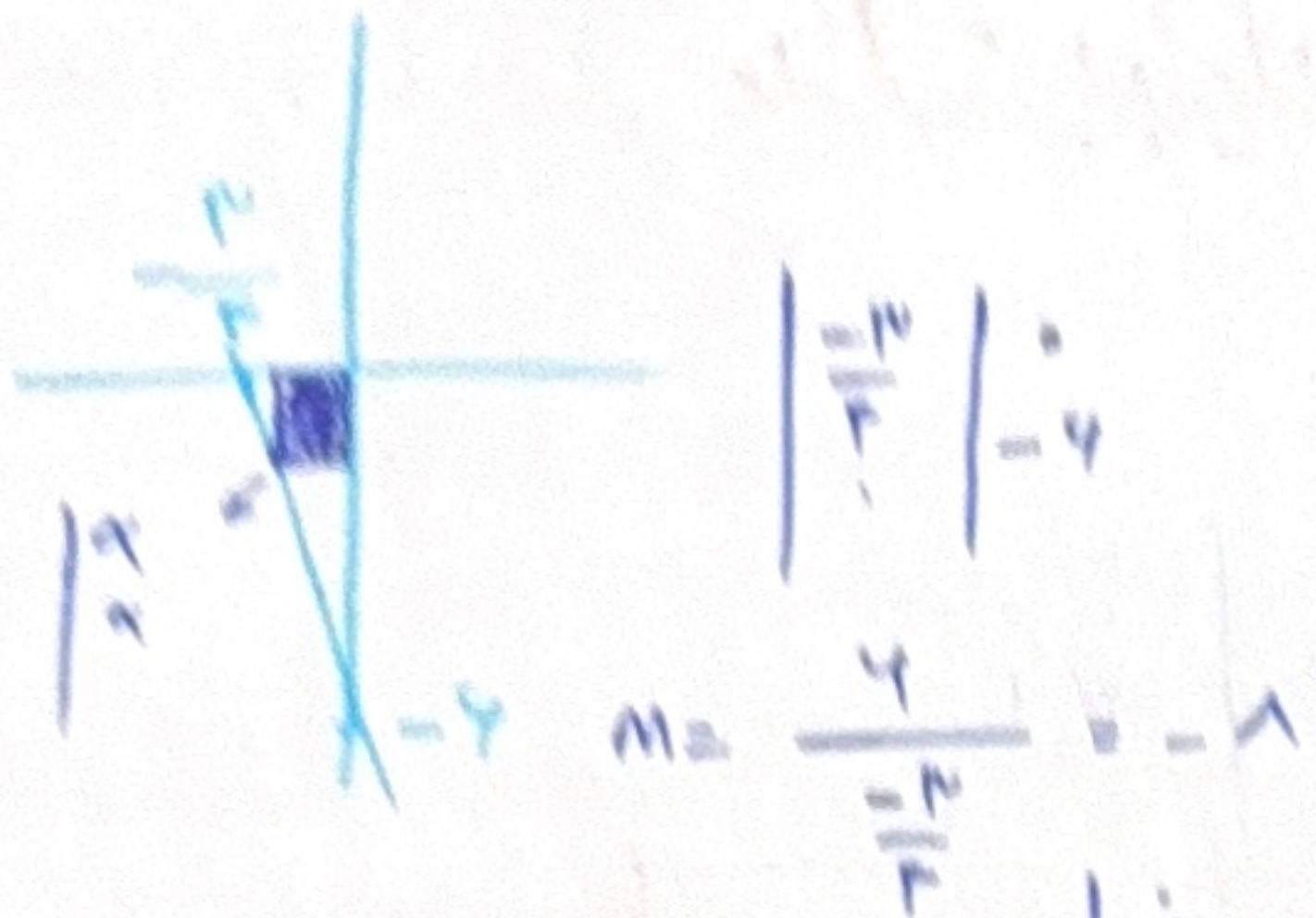
B بر خط AC

برای پیدا کردن BH، خطوط AB و BC را رسم کنید.

$AB: y = -2x+5 \xrightarrow{x^2} y = -2x+5$
 $BC: 4y = 5x-19 \xrightarrow{y} y = \frac{5x-19}{4}$
 $-2x+5 = \frac{5x-19}{4} \Rightarrow -8x+20 = 5x-19 \Rightarrow 11x = 39 \Rightarrow x = \frac{39}{11}$
 $y = 1$

AC موازی B است

$AC: 4y-2x=14 \xrightarrow{y} 4y = 2x+14 \Rightarrow 2y = x+7 \Rightarrow x = 2y-7$
 $1(2y-7)-9-19 = 0 \Rightarrow 2y = 26 \Rightarrow y = 13$



$$y = -1x + b \xrightarrow{-4} y = -4 \Rightarrow b = -4 \Rightarrow y = -1x - 4$$

$$\begin{aligned} \frac{\alpha}{\alpha} &\rightarrow y = -1x - 4 \\ \alpha &= -1\alpha - 4 \Rightarrow 2\alpha = -4 \\ \alpha &= -2 \end{aligned}$$

$$\vec{e} \rightarrow \sqrt{\left(\frac{y}{r}\right)^2 + \left(\frac{x}{r}\right)^2} = \sqrt{\frac{y^2}{r^2} + \frac{x^2}{r^2}} = \frac{\sqrt{y^2 + x^2}}{r}$$

$$y = ax + 1 \rightarrow y = \frac{1}{a}x + \frac{a-1}{a}$$

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

if $a = 1 \Rightarrow y = x + 1, y = x$ $\rightarrow y = x + 1, y = x$

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

$$\vec{e} = \frac{1}{\sqrt{2}} \begin{pmatrix} 1 \\ 1 \end{pmatrix} \Rightarrow \vec{e} = \frac{1}{\sqrt{2}} \begin{pmatrix} 1 \\ 1 \end{pmatrix} \Rightarrow \vec{e} = \frac{1}{\sqrt{2}} \begin{pmatrix} 1 \\ 1 \end{pmatrix}$$

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

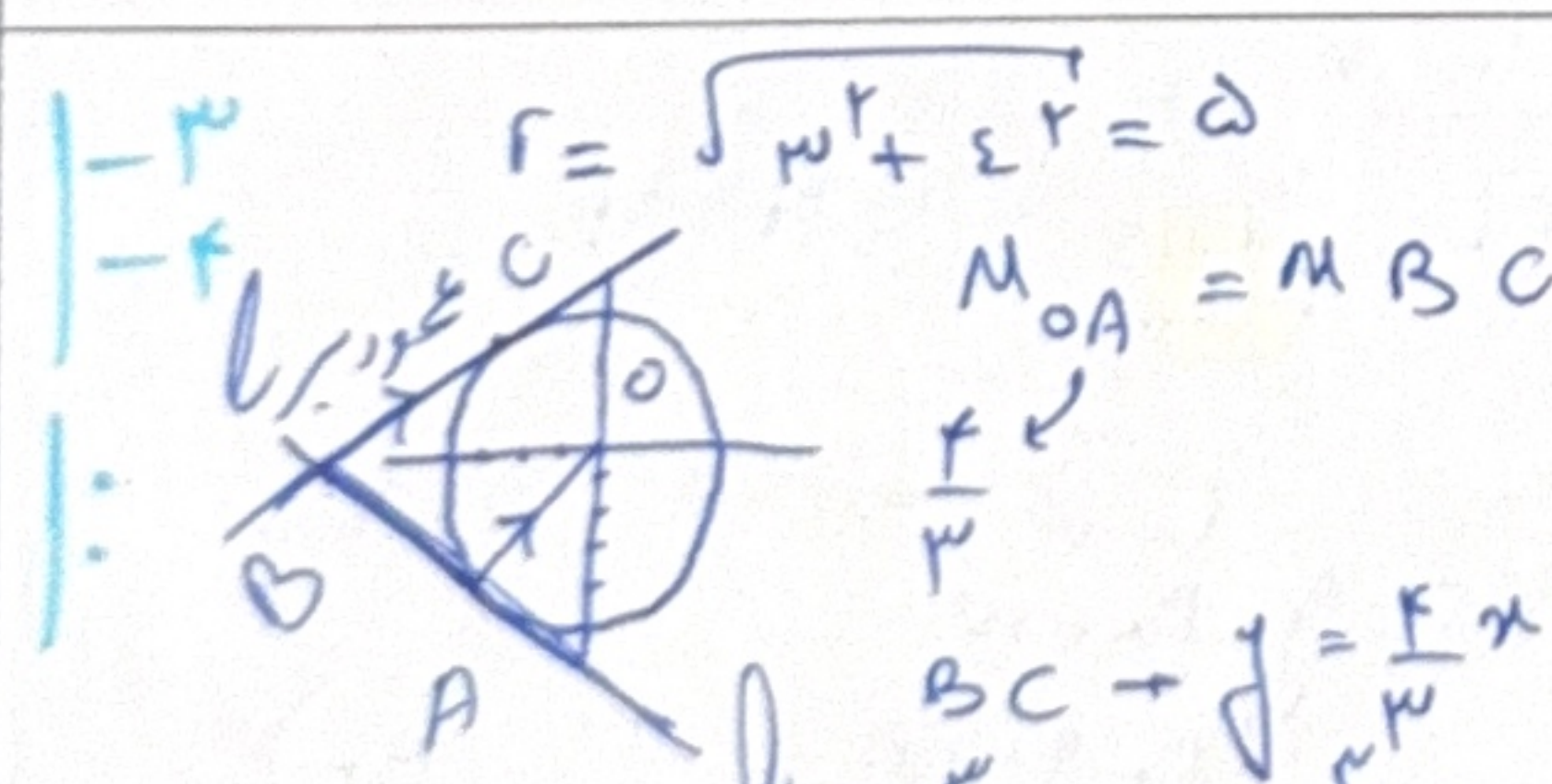
$$MAC = -1 \Rightarrow y = -1x + b \xrightarrow{1} b = 1 \Rightarrow y = -1x + 1$$

$$y = x - 1, y = -1x + 1 \Rightarrow 1 \cdot x = 1 \Rightarrow x = 1, y = 0$$

$$\begin{vmatrix} 1 & 1 & 1 \\ 1 & 0 & 0 \\ 1 & 1 & 1 \end{vmatrix} \rightarrow 1 \cdot 1 \cdot 1 = 1 \Rightarrow S = \frac{1}{1} \cdot 1 = 1$$

$$\frac{b-a}{\left(-\frac{1}{r} + \frac{1}{r}\right)} = \sqrt{2} \Rightarrow b-a = \frac{\sqrt{2}}{2}$$

$$\vec{e} = \frac{1}{\sqrt{2}} \begin{pmatrix} 1 \\ 1 \end{pmatrix} \Rightarrow \vec{e} = \frac{1}{\sqrt{2}} \begin{pmatrix} 1 \\ 1 \end{pmatrix}$$



$$\begin{aligned} BC &\Rightarrow y = \frac{r}{a}x + \frac{r}{a} \\ AB &\Rightarrow y = -\frac{r}{r}x + b \xrightarrow{-2} b = -2 \end{aligned}$$

$$x = -\frac{-14-9}{-14-9} = -1 \Rightarrow y = \frac{1-14-9}{-14-9} = -1$$