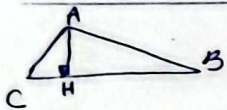


نام دانش‌آموز: زهرا سادات حسینی یا رضا شریفی تلفی شماره ۱۶ کلاس: یازدهم ریاضی

$$m_{AB} = \frac{\Delta y}{\Delta x} = \frac{-2-1}{-1-2} = \frac{-3}{-3} = 1 \rightarrow m' = -\frac{1}{m_{AB}} \rightarrow m' = -1 \rightarrow m \left| \begin{array}{l} \frac{3+2}{-1} = 3 \\ \frac{-2+1}{-1} = 1 \end{array} \right.$$

$$y = ax + b \rightarrow 1 = \frac{3}{-1} + b \rightarrow b = \frac{4}{-1} \rightarrow y = -\frac{3}{-1}x + \frac{4}{-1}$$

معادله عمود منتهی



$$BC = \sqrt{\Delta x^2 + \Delta y^2} = \sqrt{3^2 + 4^2} = 5 \quad / \quad m_{BC} = \frac{\Delta y}{\Delta x} = \frac{4-3}{-1+1} = \frac{1}{-3}$$

$$\frac{C}{\sqrt{10}} \rightarrow 3 = \frac{4}{-1} + b \rightarrow b = \frac{7}{-1} \rightarrow y = -\frac{4}{-1}x + \frac{7}{-1} \rightarrow 4y + 7x - 7 = 0 \leftarrow \text{معادله خط BC}$$

$$A \text{ در خط BC} \Rightarrow \frac{|3+12-7|}{\sqrt{4^2+7^2}} = \frac{8}{\sqrt{65}} = \frac{8}{\sqrt{65}} \Rightarrow BC - AH = 7-2=5$$

$$4y - x - 7 = 0 \quad 4y - x - 1 = 0$$

$$r = \frac{|-7+1|}{\sqrt{4^2+1}} = \frac{6}{\sqrt{17}} \rightarrow r = \frac{6}{\sqrt{17}} \rightarrow S = \pi r^2 = \frac{36}{17}$$

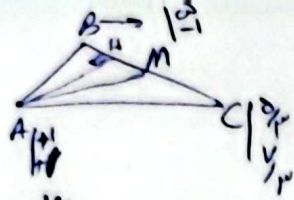
$$\left. \begin{array}{l} m_{AB} = \frac{\Delta y}{\Delta x} = \frac{3-1}{2-2} = -1 \xrightarrow{\text{جایگزینی}} 3 = -2 + b \Rightarrow y = -x + 5 \\ m_{AC} = -\frac{1}{m_{AB}} \Rightarrow m_{AC} = 1 \xrightarrow{\text{جایگزینی}} -3 = -1 + b \Rightarrow y = x - 2 \end{array} \right\} \begin{array}{l} y = -x + 5 \\ y = x - 2 \\ 2y = 3 \\ y = \frac{3}{2} \\ x = \frac{5}{2} \end{array}$$

$$HM = \sqrt{\Delta x^2 + \Delta y^2} = \sqrt{(3-2)^2 + (2-5)^2} = \sqrt{10}$$

$$\frac{-(3m-2)}{(2-m)} \times \frac{(m+1)}{(3m-2)} = -1 \rightarrow \frac{3m^2 + 3m + 2m - 2}{10m - 20 - 3m^2 + 2m} = 1 \rightarrow 3m^2 + m - 2 = -3m^2 + 18m - 20$$

$$6m^2 - 17m + 18 = 0 \rightarrow \Delta = 17^2 - 4(6)(18) = 289 - 432 < 0 \rightarrow \text{بازای هیچ مقدار}$$

m



$$\begin{cases} AC = -m + y = -1 \\ AB = m + ry = r \\ m = \frac{(r+1)}{-r-1} = \boxed{+1}, y_A = \boxed{0} \end{cases}$$

$$\begin{cases} BC = m + y = r \\ AC = -m + y = -1 \\ m = -\frac{-1-r}{1+r} = \boxed{\frac{-r}{1+r}} \\ y_C = \boxed{\frac{r}{1+r}} \end{cases}$$

$$\begin{cases} AB = m + ry = r \\ BC = m + y = r \\ m = -\frac{1-r}{1-r} = \boxed{+1} \\ y_B = -1 \end{cases}$$

$$m = \frac{1}{r} \Rightarrow AM = \sqrt{am^2 + dy^2} = \sqrt{\left(\frac{1}{r} - \frac{r}{r}\right)^2 + \left(\frac{r}{r} - \frac{r}{r}\right)^2} = \frac{\sqrt{2}}{r}$$

$$AB \cap BC \rightarrow \frac{1+1-r}{\sqrt{1+1}} = \frac{r}{\sqrt{r}} \quad \frac{AM}{AH} = \frac{\frac{\sqrt{2}}{r}}{\frac{\sqrt{r}}{1}} = \frac{\omega}{r} \leftarrow$$

$$C|0, y = -\frac{1}{r}m + b \rightarrow ry + m - rb = 0$$

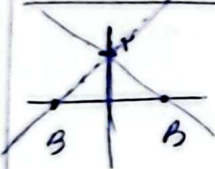
$$A|0, B|10$$

$$d = \frac{|-rb|}{\sqrt{r^2+1}} = \sqrt{r_0} \rightarrow |-rb| = 10 \rightarrow rb = 10 \rightarrow b = \omega \rightarrow ry + m - 10 = 0$$

$$\rightarrow -rb = 10 \rightarrow b = -\omega \rightarrow ry + m + 10 = 0 \rightarrow A|0, B|10$$

$$AB = \sqrt{am^2 + dy^2} =$$

$$\Rightarrow \sqrt{10^2 + \omega^2} = \omega \sqrt{2}$$



$$my - rm = rm \rightarrow A|0, B|-\frac{1}{r}m$$

$$y + mx = m + r \rightarrow A|0, B|\frac{r}{m-1}$$

$$S_A = \frac{\omega}{r} = \frac{r \times BB'}{r} \rightarrow BB' = \frac{\omega}{r} \rightarrow \sqrt{\left(-\frac{1}{r}m - \frac{r}{m-1}\right)^2} = \frac{\omega}{r} \rightarrow \left| \frac{-m^2 + m - r}{rm - r} \right| = \frac{\omega}{r}$$

$$\textcircled{r} \rightarrow \frac{-m^2 + m - r}{rm - r} = -\frac{\omega}{r} \rightarrow -rm^2 + rm - \omega = -\omega m + 10$$

$$0 = rm^2 - rm + \omega \rightarrow m = r \quad \therefore \text{Jawab} = -1 \times r = -r$$

$$\textcircled{1} \rightarrow -rm^2 + rm - \omega = 10m - 10$$

$$-rm^2 - \omega m + r = 0$$

$$m = \frac{\omega \pm \sqrt{\omega^2}}{-r} = \frac{-r}{-r} = 1$$

$$p = -1$$

$$y' = y + r \rightarrow y = y' - r$$

$$m' = m - r \rightarrow m = m' + r \Rightarrow y' - r = rm' + r - r \rightarrow y' = rm' + r$$

$$A \quad m \quad A' \rightarrow rb - a = ? \quad m = 1 \rightarrow m_{AA'} = -1 \xrightarrow{\text{Sifat}} r = -1 + \frac{1}{r} \rightarrow y = -m + r$$

$$\begin{cases} y = -m + r \\ y = m + \omega \\ ry = 1 \end{cases}$$

$$\frac{1+a}{r} = -1 \rightarrow a = -r$$

$$\frac{r+b}{r} = r \rightarrow b = r$$

$$\Rightarrow rb - a = 1r + r = \boxed{1\omega}$$

$$\boxed{y = r}, \boxed{m = -1}$$