

$$AB: mx+y=z \rightarrow y = -\frac{x}{m} + \frac{z}{m}$$

$$A(1; y) \in m-1 \Rightarrow -\frac{1}{m} + \frac{z}{m} = -\pi + \xi \rightarrow B \left| \begin{smallmatrix} \Delta \\ -\pi \end{smallmatrix} \right.$$

$$BC: mx+y=z \rightarrow y = -\frac{x}{m} + \frac{z}{m} \Rightarrow -\frac{1}{m} + \frac{z}{m} = \pi-1 \rightarrow A \left| \begin{smallmatrix} \Delta \\ \pi-1 \end{smallmatrix} \right.$$

$$\pi-1 = -\pi + \xi \rightarrow C \left| \begin{smallmatrix} \Delta \\ \frac{\pi}{2} \end{smallmatrix} \right.$$

$$\rightarrow AM = \sqrt{\frac{\xi^2}{9} + \frac{1}{9}} = \frac{\sqrt{2}}{3}$$

$$M \left| \begin{smallmatrix} \Delta, \delta \\ \frac{\sqrt{2}}{3} - 1 \end{smallmatrix} \right. \Rightarrow M \left| \begin{smallmatrix} 10 \\ \frac{\sqrt{2}}{3} \end{smallmatrix} \right. \quad 6$$

$$\text{سب } BC: \frac{\frac{\sqrt{2}}{3} - (-1)}{\frac{\Delta}{3} - \Delta} = -1 \rightarrow y - \Delta = -(x+1) \rightarrow x+1 = \pi \rightarrow H \left| \begin{smallmatrix} \sqrt{2} \\ \pi \end{smallmatrix} \right. \rightarrow AH = \sqrt{2} \Rightarrow \frac{AM}{AH} = \frac{\sqrt{2}}{\sqrt{2}} = 1$$

$$O \left| \begin{smallmatrix} 0 \\ 0 \end{smallmatrix} \right. \rightarrow OM = \sqrt{(x_0-0)^2 + (y_0-0)^2} = \sqrt{x^2 + y^2} = \sqrt{2} \rightarrow x^2 + y^2 = 2 \rightarrow x = \pm \sqrt{2}, y = \pm \sqrt{2}$$

$$m = -\frac{1}{2} \rightarrow m' = 2 \rightarrow O \left| \begin{smallmatrix} 0 \\ 0 \end{smallmatrix} \right. \quad M \left| \begin{smallmatrix} \pi \\ y \end{smallmatrix} \right. \rightarrow x = \frac{y-0}{m-0} \Rightarrow \frac{y}{2} = x \rightarrow y = 2x$$

$$x = \pm \sqrt{2}, y = \pm \sqrt{2}$$

$$y - \xi = -\frac{1}{2}(x - 1) \Rightarrow y = -\frac{x}{2} + \frac{\Delta}{2}$$

$$y + \xi = -\frac{1}{2}(x + 1) \Rightarrow y = -\frac{x}{2} - \frac{\Delta}{2}$$

$$AB = \sqrt{\Delta^2 + \Delta^2} = \Delta\sqrt{2}$$

$$my - \xi n = \xi m \rightarrow y = \frac{\xi}{m}x + \xi$$

$$y + mx = x + \xi \rightarrow y = x(1-m) + \xi$$

$$\frac{\xi}{m}x + \xi = 0 \rightarrow x = -\xi m \rightarrow x = -\frac{m}{2}$$

$$x(1-m) + \xi = 0 \rightarrow x = \frac{\xi}{m-1}$$

$$\text{حاصل: } \frac{-m}{2} - \frac{\xi}{m-1} = \frac{\Delta}{2} \rightarrow \frac{-m}{2} = \frac{\Delta}{2} + \frac{\xi}{m-1} \Rightarrow \frac{\Delta m}{m-1} = -\frac{m}{2} \Rightarrow \xi m + 1 - m = 0 \Rightarrow \frac{\xi}{m} = \frac{1-m}{m}$$

$$M \left| \begin{smallmatrix} \sqrt{2} \\ \pi \end{smallmatrix} \right. \quad \left. \begin{matrix} x' = \sqrt{2}(\xi) - \pi \\ y' = \sqrt{2}(\xi) - y \end{matrix} \right\} \rightarrow y' = \sqrt{2}(\xi) - y \rightarrow -(\xi - y) = \sqrt{2}(\xi - \pi) - \xi$$

$$\Rightarrow y = 1 - \xi\pi - \xi + \xi$$

$$y = +\xi\pi - 9$$

$$y = x + \Delta \rightarrow x - y + \Delta = 0 \quad \text{این خط بر } m=1 \text{ موازی است}$$

$$y - 1 = -1(x - 2)$$

$$y = -x + 2$$

$$\Rightarrow x + \Delta = -x + 2$$

$$\left. \begin{matrix} x = -1 \\ y = 2 \end{matrix} \right\} \quad \left. \begin{matrix} -1 = \frac{1+\Delta}{2} \Rightarrow \Delta = -2 \\ 2 = \frac{2+\Delta}{2} \Rightarrow \Delta = 2 \end{matrix} \right\} \Rightarrow \Delta = 1$$