

طه عرصيا عمار، ياردهم، - تلفيف

$$m = \left(\frac{r+1}{r}, \frac{1-4}{r} \right) = (r, 1) \quad \text{نسبت افقي} = \frac{1+4}{r-1} = \frac{12}{-r} = -4$$

$$\text{نسبت عمودي} = \frac{1}{4}$$

$$y-1 = \frac{1}{4}(x-r) \rightarrow y = \frac{1}{4}x + \frac{r}{4}$$

$$x-4y = -r$$

$$\overline{BC} = \sqrt{9+16} = \sqrt{25} = 5 \quad m_{\overline{BC}} = \frac{r-4}{-1+1} = \frac{-4}{r}$$

$$y-4 = \frac{-4}{r}(x+1)$$

$$ry - 4r = -4x - 4$$

$$rx + ry - 4 = 0$$

$$\text{نسبت عمودي} = \frac{|1r+r-4|}{\sqrt{r^2}} = \frac{1}{r} = 4$$

$$4-r = r$$

$$\left. \begin{array}{l} ry - 4x = r \\ ry - x = 4 \end{array} \right\} \frac{r}{r} = \frac{-4}{-1} = 4 = r \quad \left\{ \begin{array}{l} ry - 4x = r \\ ry - x = 4 \end{array} \rightarrow \begin{array}{l} ry - 4x = r \\ ry - rx = 4 \end{array} \right.$$

$$rr = \frac{|12-4|}{\sqrt{r}} = \frac{8}{\sqrt{r}} \Rightarrow r = \frac{r}{\sqrt{r}} \rightarrow S = \pi r^2 = \frac{9}{4}\pi$$

$$\left. \begin{array}{l} \overline{AC} = r\sqrt{5} \\ \overline{BC} = \sqrt{51} \\ \overline{AB} = r\sqrt{2} \end{array} \right\} m_H = \frac{|4-51|}{r\sqrt{2}} = \frac{47}{r\sqrt{2}} = \frac{\sqrt{2}}{r}$$

$$\left. \begin{array}{l} \frac{m+1}{r-m-1} x + \frac{1}{r-m-1} \\ \frac{r-m-1}{m-1} x = \frac{v}{m-1} \end{array} \right\} a_1 a_2 = -1 \quad -rm^2 + 14m - r = r^2 m^2 + m - r$$

$$2m^2 - 14m + 14 = 0$$

$$0 = b^2 - 4ac < 0 \quad \text{جواب ندارد}$$

$$AB = AC \quad \begin{aligned} rx + ry &= r \\ rx - y &= 1 \end{aligned}$$

$$\Delta y = \Delta \rightarrow y, x = 1$$

$$AB = BC \quad \begin{aligned} x + ry &= r \\ x + y &= \varepsilon \\ y &= -1, x = \Delta \end{aligned}$$

$$AC = BC \quad \begin{aligned} rx - y &= 1 \\ x + y &= \varepsilon \\ x &= \frac{\Delta}{r}, y = \frac{\Delta}{r} \end{aligned}$$

$$y + x - \varepsilon = 0$$

$$m = \left(\frac{1}{r}, \frac{r}{r} \right)$$

$$AM = \frac{\sqrt{\Delta}}{r} \quad \text{I}$$

$$\text{I} / \text{II} = \frac{\sqrt{\Delta}}{r} = \frac{\Delta}{r}$$

$$AH = \frac{|1+1-\varepsilon|}{\sqrt{r}} = \frac{r}{\sqrt{r}} = \sqrt{r} \quad \text{II}$$

$$y = \frac{-1}{r}x + b \quad \left. \begin{aligned} (0, \Delta) \rightarrow \sqrt{r} \end{aligned} \right\} \frac{|b|}{\frac{\sqrt{\Delta}}{r}} = \Delta \rightarrow |b| = \Delta \rightarrow b = \pm \Delta$$

10

$$\left. \begin{aligned} (x, 0) \rightarrow 0 &= \frac{-x}{r} + b \rightarrow x = rb \\ (0, B) \rightarrow B &= 0 + b \rightarrow B = b \end{aligned} \right\} AB = \sqrt{\Delta} |b| = \Delta \sqrt{\Delta}$$

15

$$\left. \begin{aligned} y &= (1-m)x + r \rightarrow (1-m)x = -r \rightarrow x = \frac{r}{m-1} \\ y &= \frac{r}{m}x + r \rightarrow \frac{r}{m}x = -r \rightarrow x = -\frac{m}{r} \end{aligned} \right\} = \frac{|m^r - m + \varepsilon|}{|r - m - r|} = w$$

$$\left. \begin{aligned} (1-m)x + r &= \frac{r}{m}x + r \rightarrow x = 0 \\ y &= r \end{aligned} \right\} \varepsilon(r) = r \quad \frac{w \times r}{r} = \frac{\Delta}{r}$$

$$w = \Delta$$

$$\frac{m^r - m + \varepsilon}{m-1} = \Delta \rightarrow (m-r)^r = 0 \rightarrow m = r$$

20

$$\frac{m^r - m + \varepsilon}{m-1} = -\Delta \rightarrow m^r + rm - 1 = 0 \rightarrow \Delta > 0$$

$$(10^x - 1) = -r$$

$$\begin{aligned} rx_m - x_A &= \varepsilon \\ ry_m - y_A &= -1 \end{aligned} \rightarrow y = rx + b \rightarrow -1 = r + b, b = -r$$

$$y = rx - r$$

25

$$AH: y = -x + b \rightarrow r = -1 + b \rightarrow b = r \quad \left. \begin{aligned} AH &= y = -x + r \\ b &= y = x + \Delta \end{aligned} \right\} \begin{aligned} x &= -1 \\ y &= \varepsilon \end{aligned}$$

$$\left. \begin{aligned} rx_H - x_A &= r \\ ry_H - y_A &= r \end{aligned} \right\} \begin{aligned} a &= -r \\ b &= r \end{aligned} \quad rb - a = r^2 + r = \Delta$$

30