

19,5

Date

کتابان جعفری

Subject

$$\textcircled{1} \quad \frac{m-k}{r+r} = \frac{m-k}{9} = \frac{-1}{r} \Rightarrow -r = m-k \Rightarrow k-r = m \quad \textcircled{2}$$

$$\sqrt{(r+r)^2 + (k-r-k)^2} = \sqrt{r^2 + 9} = \sqrt{25} \Rightarrow (\sqrt{25})^2 = 25 \quad \checkmark$$

$$\textcircled{2} \quad n-1 = r-1-n \Rightarrow rn = r \Rightarrow n = \frac{r}{r}$$

$$\frac{r}{r}x - r = y \Rightarrow \frac{r}{r} \times \frac{r}{r} - r = -1 \quad \textcircled{2}$$

$$AB = \sqrt{(r+1)^2 + (r-1)^2} = \sqrt{9+16} = 5 \quad \checkmark$$

$$BC = \sqrt{(r-1/5)^2 + (1+1)^2} = \frac{5}{r} \quad \checkmark$$

$$\Rightarrow 2(\Delta + \frac{\Delta}{r}) = 10 + \Delta = 10 \quad \checkmark$$

$$\textcircled{3} \quad \tanh y_0 = \sqrt{r} \Rightarrow \frac{-rm}{m^2-1} = \sqrt{r} \Rightarrow -rm = \sqrt{r}m^2 - \sqrt{r}$$

$$\Rightarrow \sqrt{r}m^2 + rm - \sqrt{r} = 0 \Rightarrow m = \frac{-\sqrt{r} \pm \sqrt{r^2 + 4r}}{2\sqrt{r}} \quad \frac{\sqrt{r}}{r} + \frac{r\sqrt{r}}{r} = \frac{r\sqrt{r}}{r} \quad \checkmark$$

$$\textcircled{4} \quad \frac{1}{r} \begin{vmatrix} 1 & 1 & 1 \\ 1 & 1 & 1 \\ 1 & 1 & 1 \end{vmatrix} = 0 \quad BC = \sqrt{(r-r)^2 + (1-r)^2} = \sqrt{50}$$

$$\sqrt{50} \times Ah = 25 \Rightarrow Ah = \frac{25}{\sqrt{50}} = \frac{10}{\sqrt{2}} \quad \checkmark$$

$$\textcircled{5} \quad \begin{cases} ry - vn = -19 \\ ry - vn = 1v \end{cases} \Rightarrow \begin{cases} ry - vn = 1v \\ y + rn = v \end{cases} \Rightarrow \begin{cases} ry - vn = -19 \\ y + rn = v \end{cases}$$

$$C: n=0, y=1 \quad A: n=1, y=5 \quad B: n=r, y=1 \quad \textcircled{2}$$

$$AC = \sqrt{(5-1)^2 + (1-1)^2} = 4$$

$$\frac{1}{r} \begin{vmatrix} 5 & 1 & r \\ 1 & 0 & 1 \\ 1 & 1 & 1 \end{vmatrix} = 11 \Rightarrow 11 = \frac{4 \times Bh}{r} \Rightarrow Bh = \frac{r \times 11}{4} = \frac{r \times 11}{4} \quad \checkmark$$

$$(1) \quad \frac{y}{-4} + \frac{x}{\frac{-2}{4}} = 1 \Rightarrow \frac{y}{-4} + \frac{4x}{-2} = 1 \quad (2)$$

$$\Rightarrow -3y - 2x = 1 \Rightarrow y + 1x = -\frac{1}{3} \quad \left. \begin{array}{l} x + 1x = -\frac{1}{3} \\ x = y \end{array} \right\} \Rightarrow 9x = -\frac{1}{3}$$

$$x = \frac{-\frac{1}{3}}{9} = \frac{-1}{27}$$

$$\sqrt{\left(0 + \frac{-1}{27}\right)^2 + \left(0 + \frac{-1}{27}\right)^2} = \frac{\sqrt{2}}{27} \quad \checkmark$$

$$(3) \quad \frac{1}{a} = a \Rightarrow a = \pm 1 \quad \left\{ \begin{array}{l} y - x = 0 \Rightarrow x = y \\ y - x = 1 \Rightarrow x + 1 = y \end{array} \right.$$

$$\frac{|1-1|}{\sqrt{1^2+1^2}} = \frac{\sqrt{2}}{2} \quad \text{و} \quad x^2 = 10 - \frac{1}{x} \Rightarrow x^2 = \frac{10x-1}{x} \Rightarrow x = \frac{1}{\sqrt{2}}$$

$$\frac{1}{\sqrt{2}} \times \frac{\sqrt{2}}{2} = \left(\frac{1}{2}\right) \quad \checkmark \quad (3)$$

$$(4) \quad AM = AB \rightarrow AB = \frac{|1-1|}{\sqrt{10}} = \frac{1}{\sqrt{10}} \quad \checkmark \quad (1,75)$$

$$AB \perp BC \rightarrow y_{AB} = -3x + 12 \rightarrow \left\{ \begin{array}{l} 3x + 12 = y \rightarrow x_B = \frac{1}{3} \\ \frac{x-1}{3} = y \rightarrow y_B = 0,9 \end{array} \right.$$

$$AB \times BC = \sqrt{10} \times \sqrt{0,9} = \frac{3\sqrt{10}}{10} = 0,9 \quad (2)$$

پس چون این خط شیب خط BC است 2

و مثلث ABC دایره حسیه ای است پس

پس این دایره حسیه را می توانیم برای هر نقطه ای که طول از مرکز باشد 4/0

(9)

$$\frac{b-a}{\frac{-1}{r} + \frac{1}{r}} = \sqrt{r} \Rightarrow b-a = \frac{\sqrt{r}}{r} - \frac{\sqrt{r}}{r}$$

$$4b-9a = 4\sqrt{r} - 9\sqrt{r} \quad (2)$$

$$\Rightarrow b-a = \frac{\sqrt{r}}{4} \Rightarrow b = \frac{\sqrt{r}}{4} + a$$

$$\left(\frac{1}{r} - \frac{1}{r}\right)^r + \left(\frac{\sqrt{r}}{4} + a - a\right)^r = \frac{1}{r^{\frac{r}{2}}} + \frac{r}{r^{\frac{r}{2}}} = \frac{r}{r^{\frac{r}{2}}} = \frac{1}{r} \rightarrow \frac{1}{r}$$

$$\sqrt{r} \times \frac{1}{r} = \frac{\sqrt{r}}{r} \quad \checkmark$$

(10)

$$(0+x)^r + (0+y)^r = (0-x)^r + (0-y)^r$$

$$r0 = 9 + 17 = x^r + y^r \quad (1, 10)$$

$$\Rightarrow r0 = x^r + y^r \Rightarrow r0 = x^r + \frac{9x^r}{17} \Rightarrow r0 = \frac{r0x^r}{17}$$

$$m' = \frac{r}{r}, m = \frac{-r}{r} = \frac{-y}{x} \Rightarrow \frac{-rx}{r} = y \Rightarrow 17 = x$$

$$\begin{cases} r = x \\ r = y \end{cases}$$

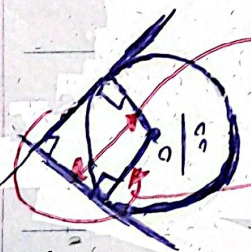
$$\begin{cases} L': \frac{r}{r} x + \frac{r0}{r} = y \Rightarrow \frac{r}{r} x + \frac{r0}{r} = \frac{-r}{r} x - \frac{r0}{r} \end{cases}$$

$$\begin{cases} L: \frac{-r}{r} x - \frac{r0}{r} = y \end{cases} \quad 17x + 170 = -9x - 170$$

$$r0x = -170 \Rightarrow x = -17 \quad \checkmark$$

$$y = -17 \quad \checkmark$$

$$x, y = 170 \quad \checkmark$$



نسب خط مماس m

نسب خط مماس m'