

$$M \begin{cases} \frac{x+2}{2} = 3 \\ \frac{1-y}{2} = 1 \end{cases}$$

$$B(2, 1) \text{ و } A(4, -2)$$

معادله خط از

$$m = \frac{1 - (-2)}{2 - 4} = -\frac{3}{2}$$

$$m \times m' = -1$$

$$a = \frac{1}{m}$$

$$m' = \frac{1}{m}$$

$$y = ax + b$$

$$M: \begin{cases} 3 \\ 1 \end{cases}$$

$$1 = \frac{2}{-3} + b \rightarrow b = \frac{5}{3}$$

$$\text{معادله خط} \rightarrow y = \frac{1}{3}x + \frac{5}{3}$$

$$BC - AH = ?$$

$$A(3, 1)$$

$$B(-4, 5)$$

$$C(-1, 3)$$

مساحت

$$BC \rightarrow \text{ارتفاع وارده} \quad m \times m' = 1 \quad \frac{5 - 3}{-4 - (-1)} = \frac{2}{-3} \rightarrow \text{شیب} = +\frac{3}{2}$$

معادله خط

$$y = am + b$$

$$\rightarrow A \rightarrow +\frac{3}{2}(3) + b = \frac{5}{2}$$

$$\frac{3}{2}m - \frac{5}{2} = y$$

$$\frac{9}{2} - \left(\frac{5}{2}\right)$$

$$BC \rightarrow C \rightarrow -\frac{3}{2}(-1) + b = \frac{5}{2}$$

$$-\frac{3}{2}m + \frac{5}{2} = y$$

$$+\frac{3}{2} + b = \frac{5}{2} \rightarrow b = \frac{2}{2}$$

$$-\frac{3}{2}m + \frac{5}{2} = \frac{3}{2}m - \frac{5}{2} \rightarrow \frac{2 \times 10}{12} = \frac{9 \times 14}{12} \rightarrow m = \frac{30}{10} = \frac{3}{1}$$

$$H: \left(\frac{3}{2}, -\frac{1}{2}\right)$$

$$BC \text{ اندازه} = \sqrt{\frac{(-4-(-1))^2}{9} + \frac{(5-3)^2}{14}} = \sqrt{20} = \sqrt{5}$$

$$AH \text{ اندازه} = \sqrt{\frac{\left(\frac{3}{2} - \frac{3}{2}\right)^2}{\frac{9}{40}} + \frac{\left(1 - \left(-\frac{1}{2}\right)\right)^2}{\frac{16}{40}}} = \sqrt{\frac{1}{10}} = \frac{1}{\sqrt{10}}$$

$$\delta = 3 \leftarrow \text{بسیار}$$

$$1 \quad \text{مروفتی داری} \quad \frac{a}{a'} = \frac{b}{b'} \quad (3)$$

$$2 \quad ry - m = v \rightarrow ry = m + v \rightarrow y = \frac{1}{r}m + \frac{v}{r} \rightarrow ry = m + v = 0$$

$$3 \quad ry = am + r \rightarrow y = \frac{a}{r}m + \frac{r}{r} \rightarrow y = \frac{1}{r}m + \frac{1}{r} \rightarrow ry = m + 1 \rightarrow ry = m - 1 = 0$$

$$4 \quad \frac{a}{r} = \frac{1}{r} \rightarrow (ar)$$

$$5 \quad \text{مروفتی داری} \rightarrow \left\{ \frac{|c - c'|}{\sqrt{a^2 + b^2}} \Rightarrow \frac{|-1 - (-v)|}{\sqrt{d}} \Rightarrow \frac{4}{\sqrt{d}} \times \frac{1}{r} = \frac{r}{\sqrt{d}} = r \in \sum_{r \in \mathbb{Z}}$$

$$6 \quad \text{باقی داری} \quad r^2 \Rightarrow \frac{4}{d} \times \pi = \left(\frac{4}{d} \pi \right)$$

$$7 \quad \text{است.}$$

$$8 \quad (4)$$

$$9 \quad \text{محقق} \rightarrow \begin{cases} \frac{r+r}{r} = r \\ \frac{r+1}{r} = r \end{cases} \quad M \mid r \quad A(r, r) \quad B(1, 1) \quad C(-1, -r)$$

$$10 \quad -m + 0 = y$$

$$11 \quad H \text{ محقق} \rightarrow mm' = -1 \quad m \Rightarrow \frac{r-1}{r-1} = -\frac{r}{r} \rightarrow -1(r) + b = r$$

$$12 \quad m' \Rightarrow +1 \Rightarrow (-1) + b = -r$$

$$13 \quad \text{تلاقی داری} \quad m = r = m + d \quad m + (-r) = y$$

$$14 \quad \text{سفر داری} \quad rm = v \quad n = \frac{v}{r} \quad H\left(\frac{v}{r}, \frac{r}{r}\right)$$

$$15 \quad HM \Rightarrow \sqrt{\left(r - \frac{v}{r}\right)^2 + \left(r - \frac{r}{r}\right)^2} \rightarrow \sqrt{\frac{1}{r}} \rightarrow \frac{\sqrt{r}}{r} = HM$$

$$16 \quad \frac{1}{r} + \frac{1}{r}$$

$$17 \quad \frac{m+1}{rm-1} = m \quad \frac{m+1}{rm-1} = \frac{d-m}{rm-1} \quad rm^2 + m - r = -rm^2 + 1 + m - r \quad (5)$$

$$18 \quad dm^2 - 11m + 1 = 0$$

$$19 \quad (m+1)m - (rm-1)y + 1 = 0 \quad d = -149 - (r \times 11) < 0$$

$$(m; 1, \infty, \frac{d}{r})$$

$$20 \quad (rm-1)m + (d-m)y - v = 0$$

$$m = -\frac{1}{m'} \quad m' = -\left(\frac{rm-1}{d-m}\right) \rightarrow -\frac{1}{m} = \frac{d-m}{rm-1}$$

$$AB: m + y = r \rightarrow -\frac{1}{r}m + \frac{r}{r}y$$

$$\frac{AM}{AH} = \frac{0}{1}$$

(9)

$$AC: y = r_{m-1} \rightarrow y = r_{m-1}$$

$$BC: m + y = r \rightarrow y = r - m$$

$$-\frac{1}{r}m + \frac{r}{r}y = -m + r$$

$$\frac{1}{r}m = \frac{0}{r} \rightarrow m = 0$$

$$B = (0, -1)$$

$$C = \left(\frac{0}{r}, \frac{r}{r}\right)$$

$$r_{m-1} = -m + r$$

$$r_{m-1} = 0 \quad m = \frac{0}{r}$$

$$A = (1, 1)$$

$$AM = \sqrt{\left(\frac{0}{r}\right)^2 + \left(\frac{1}{r}\right)^2} = \frac{\sqrt{0.1}}{r}$$

$$-\frac{1}{r}m + \frac{r}{r}y = r_{m-1}$$

$$\frac{0}{r}m = \frac{0}{r} \rightarrow m = 1$$

$$AH = \frac{|1+1-1|}{\sqrt{2}} = \frac{1}{\sqrt{2}}$$

$$\frac{AM}{AH} = \frac{\frac{\sqrt{0.1}}{r}}{\frac{1}{\sqrt{2}}} = \frac{\sqrt{0.1}}{r} \cdot \frac{\sqrt{2}}{1} = \frac{\sqrt{0.2}}{r}$$

$$\frac{m}{A} + \frac{y}{B} = 1 \rightarrow \frac{m_B + y_A}{AB} = 1$$

$$AB = m_B + y_A$$

(V)

$$\frac{|AB|}{\sqrt{A^2 + B^2}} = \sqrt{r_0} \rightarrow \frac{r_B}{\sqrt{0.1}} = \sqrt{r_0} \rightarrow \frac{r_B}{\sqrt{0.1}} = \sqrt{r_0} \rightarrow r_B = \sqrt{0.1} \cdot \sqrt{r_0}$$

$$\sqrt{r_0 + 0.1} = (\sqrt{0.1}) \cdot \sqrt{r_0}$$

$$1 \quad my - \epsilon m s r m \rightarrow y s \frac{\epsilon}{m} n + r \quad (A)$$

$$2 \quad y + m m s m + r \rightarrow y s (1-m) m + r \quad y s \frac{\epsilon}{m} m + r s \cdot m s - \frac{m}{r} B \left| -\frac{m}{r} \right.$$

$$3 \quad \frac{\epsilon}{m} m + r s (1-m) m + r \Rightarrow y s r \quad A \left| \frac{0}{r} \right. \quad y s (1-m) m + r s \cdot \rightarrow n s - \frac{r}{1-m} C \left| \frac{r}{m-1} \right.$$

$$4 \quad S s \frac{1}{r} \left| \frac{\epsilon}{m-1} - (-m) \right| s \frac{0}{r} \quad - \delta m + \delta s m r m + \epsilon$$

$$5 \quad \left| \frac{\epsilon + m(m-1)}{m-1} \right| s \delta \quad \frac{\epsilon + m(m-1)}{m-1} s \delta \quad m r + \epsilon m - 1 s \delta$$

$$6 \quad \frac{\epsilon + m(m-1)}{m-1} s \delta \quad \frac{\epsilon + m(m-1)}{m-1} s \delta \quad \frac{\epsilon + m(m-1)}{m-1} s \delta$$

$$7 \quad m r - 4 m + 9 s \delta \rightarrow (m - r) r s \cdot \quad \leftarrow \delta m - \delta s \epsilon + m r - m$$

$$8 \quad P s (-r + \sqrt{0}) (-r - \sqrt{0}) (r) \Rightarrow (\epsilon - \delta) (r) s - r$$

$$9 \quad$$

$$10 \quad \frac{\alpha + 0}{r} s r \rightarrow \alpha s r \quad n s \cdot \rightarrow y s - r \quad (4)$$

$$11 \quad \frac{\beta - r}{r} s - r \rightarrow \beta s - 1 \quad y + 1 s r (m - \epsilon) s \rightarrow y + 1 s r m - 1$$

$$12 \quad \frac{\beta - r}{r} s - r \rightarrow \beta s - 1 \quad y s r m - 1$$

$$13 \quad$$

$$14 \quad y - r s - (m-1) s \rightarrow y - r s - m + 1 s \rightarrow y s - m + r \quad (1.)$$

$$15 \quad - n + r s m + \delta s \rightarrow - r m s r \rightarrow m s - 1$$

$$16 \quad \frac{r+b}{r} s \rightarrow r b s y \quad \frac{1+q}{r} s - 1 \rightarrow a s - r \quad r b - a s 1 r r s (1a)$$

$$17 \quad$$

$$18 \quad$$

$$19 \quad$$

$$20 \quad$$