

$$T = (3, 1) \quad M_{AB} = \frac{1 \cdot 6}{2-1} = -6 \Rightarrow m' = \frac{1}{6} \quad (1)$$

$$\Rightarrow y = \frac{1}{6} x + b \xrightarrow{1} y = \frac{1}{6} x + \frac{5}{6}$$

$$BC = \sqrt{9+16} = 5 \quad (2)$$

$$M_{BC} = \frac{3-1}{-1-1} = \frac{-2}{-2} = 1 \Rightarrow y = -\frac{1}{2} x + b \xrightarrow{1} y = -\frac{1}{2} x + \frac{5}{2}$$

$$d = \frac{|1+6 \cdot \frac{5}{6}|}{\sqrt{1+\frac{36}{36}}} = \frac{10}{2} = 5 \Rightarrow 5-2 = 3$$

$$\left. \begin{aligned} y &= \frac{1}{6} x + \frac{5}{6} \\ y &= \frac{1}{6} x + \frac{5}{6} \end{aligned} \right\} m = m' \Rightarrow \frac{1}{6} = \frac{a}{6} \Rightarrow a = 1$$

$$d = \frac{|c-c'|}{\sqrt{a^2+b^2}} \Rightarrow 2r = \frac{|-\frac{5}{6} - \frac{1}{6}|}{\sqrt{1+\frac{1}{36}}} = \frac{1}{\sqrt{\frac{37}{36}}} = \frac{6}{\sqrt{37}} \Rightarrow r = \frac{3}{\sqrt{37}}$$

$$S = \pi r^2 = \left(\frac{3\sqrt{37}}{37}\right)^2 \pi = \frac{9}{37} \pi$$

$$B, A, M \Rightarrow (3, 2) \quad (3)$$

$$M_{AB} = \frac{3-1}{1-1} = -1 \Rightarrow m_{CH} = 1 \quad y = x + b \xrightarrow{1} y = x - 1$$

$$d = \frac{|2-3+1|}{\sqrt{1+1}} = \frac{\sqrt{2}}{2}$$

$$(r_m - r)k_a(\delta - m)y - V = 0 \Rightarrow y = \frac{(r - r_m)k_a V}{(\delta - m)(r_m - r)} \quad \text{mm/s} \quad (4)$$

$$(m+1)k_a - (r_m - r)y_a = 0 \Rightarrow y = \frac{m+1}{r_m - r} k_a + \frac{1}{r_m - r}$$

$$\Rightarrow \frac{r - r_m}{\delta - m} \times \frac{m+1}{r_m - r} = -1 \rightarrow \delta m^2 - 1 r_m + 1 r = 0 \rightarrow \Delta = 0$$

بازایی هر نقطه این دو خط عمود است

$$\begin{array}{l} A \rightarrow \begin{cases} k_a y = r \\ -r k_a y = -1 \end{cases} \rightarrow \begin{cases} k = -\frac{r - r}{1 r} = 1 \\ y = \frac{-1 r}{1 r} = -1 \end{cases} \quad A = \begin{vmatrix} 1 \\ -1 \end{vmatrix} \quad (5) \\ AC, AB \text{ دایره} \end{array}$$

$$\begin{array}{l} B \rightarrow \begin{cases} k_a y = r \\ k_a y = r \end{cases} \rightarrow \begin{cases} k = -\frac{1 - r}{1 - r} = 0 \\ y = \frac{r - r}{1 - r} = -1 \end{cases} \quad B = \begin{vmatrix} 0 \\ -1 \end{vmatrix} \\ AB, BC \end{array}$$

$$\begin{array}{l} C \rightarrow \begin{cases} -r k + y = -1 \\ k_a y = r \end{cases} \rightarrow \begin{cases} k = -\frac{r+1}{-r-1} = \frac{\delta}{r} \\ y = \frac{-1+1}{-r-1} = \frac{V}{r} \end{cases} \quad C = \begin{vmatrix} \frac{\delta}{r} \\ \frac{V}{r} \end{vmatrix} \end{array}$$

$$CB \text{ میانه} \rightarrow \begin{vmatrix} \frac{1}{r} \\ \frac{V}{r} \end{vmatrix} \rightarrow AM = \sqrt{\frac{r^2 + 1}{a}} = \frac{\delta \sqrt{r}}{r}$$

$$AH = \frac{|1 r - r|}{\sqrt{1 r}} = \sqrt{r} \quad \frac{AM}{AH} = \frac{\delta}{r}$$

$$y = -\frac{1}{r} k_a b$$

(6)

$$1: \rightarrow \frac{|1 r - b|}{\sqrt{1 r}} = \frac{|b|}{\sqrt{r}} = \sqrt{r} \Rightarrow |b| = r \sqrt{r} + \sqrt{r} = \delta$$

$$AB = \sqrt{r^2 + 1} = \delta \sqrt{r}$$

$$my - rK - ym \rightarrow y = \frac{r}{m} m \quad (P) \quad \left. \begin{array}{l} \text{نقطة } (0, r) \\ (0, r) \end{array} \right\} \quad (1)$$

$$y + mK = K_0 \rightarrow y = (1-m)K_0 \quad (P)$$

$$y_B = \frac{r}{m} K_B + y \xrightarrow{y=0} \frac{r}{m} K_B + 0 = 0 \rightarrow K_B = -\frac{y}{r}$$

$$y_C = (1-m)K_C + y \xrightarrow{y=0} K_C = \frac{y}{m-1}$$

$$A = \begin{vmatrix} 0 \\ 1 \end{vmatrix} \quad B = \begin{vmatrix} \frac{y}{r} \\ 0 \end{vmatrix} \quad C = \begin{vmatrix} \frac{y}{m-1} \\ 0 \end{vmatrix}$$

$$|K_B - K_C| = \frac{\delta}{r} \rightarrow \left| \frac{r}{m-1} + \frac{y}{r} \right| = \frac{\delta}{r} \quad \begin{cases} m=1 \\ m=-1 \end{cases} \quad r(-1) = -r$$

$$d_1: y = rK - r \quad d_2: y = rK - C \quad d_3: y = rK - \frac{C+r}{r} \quad (4)$$

$$d_3(0, m) \rightarrow -r = r - \frac{C+r}{r} \Rightarrow C = r$$

$$m=1 \Rightarrow m_{AA'} = -1$$

$$y - y_A = -1(K - K_A) \Rightarrow y - r = -K_A \Rightarrow y = -K_A + r \quad (L)$$

$$K_A \delta C - K_A r \Rightarrow K = -1, y = r \Rightarrow m \begin{cases} \frac{a-1}{r} = -1 \Rightarrow a = -r \\ \frac{b+r}{r} = r \Rightarrow b = r^2 \end{cases}$$

$$r^2 - a = 1 \Rightarrow r^2 = 1 \Rightarrow r = 1$$

بعضیہ بدظن شد