

$$A \begin{vmatrix} 4 \\ -4 \end{vmatrix} \quad B \begin{vmatrix} 2 \\ 1 \end{vmatrix} \quad \begin{vmatrix} 3 \\ 1 \end{vmatrix}$$

$$x_2 = \frac{2 \cdot 4}{1} = 8$$

$$y_2 = \frac{1 \cdot 4}{1} = 4$$

$$a_{AB} = \frac{1 \cdot (-4)}{2 \cdot 4} = -\frac{1}{2} \xrightarrow{\text{مضرب ۲}} -\frac{1}{2}$$

$$y - 1 = \frac{1}{2} (x - 3)$$

$$y = \frac{1}{2} x + \frac{5}{2}$$

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$$BC = \sqrt{(1-3)^2 + (-4+1)^2} = \sqrt{5}$$

$$m_{BC} = \frac{1-3}{-4+1} = \frac{2}{-3} = -\frac{2}{3}$$

$$y - 3 = -\frac{2}{3} (x - 1) \quad y = -\frac{2}{3} x + \frac{10}{3}$$

$$\rightarrow 3y + 2x - 10 = 0$$

$$\frac{|4 \cdot 3 + 3 \cdot 1 + (-10)|}{\sqrt{4^2 + 3^2}} = 2$$

$$\boxed{\omega \cdot 2 = 3}$$

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$$3y - x = 15$$

$$2y - x = 5 \rightarrow m = \frac{1}{2}$$

$$4y - 9x = 2 \rightarrow m = \frac{9}{4}$$

$$\} \rightarrow a = 2$$

$$r = \frac{|-15+2|}{\sqrt{14+1}} = \frac{13}{\sqrt{15}}$$

$$R = \frac{13}{\sqrt{15}} \times \frac{1}{2} = \frac{13}{2\sqrt{15}}$$

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$$\pi r^2 = \pi \times \left(\frac{13}{2\sqrt{15}}\right)^2 = \frac{169}{30} \pi$$

$$m_{AB} = \frac{3-1}{2-4} = \frac{2}{-2} = -1 \quad y - 3 = -1(x - 2) \quad y = -x + 5$$

$$m_{CH} = 1 \quad y + 3 = 1(x + 1) \quad y = x - 2$$

$$\begin{cases} y = -x + 5 \\ y = x - 2 \end{cases} \quad \begin{matrix} y = \frac{3}{2} \\ x = \frac{7}{2} \end{matrix}$$

$$x_m = \frac{2+3}{2} = \frac{5}{2}$$

$$y_m = \frac{3+1}{2} = 2$$

$$\sqrt{\left(\frac{5}{2} - 2\right)^2 + \left(\frac{3}{2} - 2\right)^2} = \frac{\sqrt{5}}{2}$$

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$$d_1 = \frac{r_m + r}{\omega \cdot m}$$

$$\frac{r_m - r}{\omega \cdot m} = \frac{r_m + r}{m + 1}$$

$$-r_m^2 + r_m - r_m + r = -r_m^2 + r_m^2 + r - r_m$$

$$a_r = \frac{m+1}{r_m - r}$$

$$\omega m^2 - r_m + 1 = 0 \quad \text{در } k \text{ ام}$$

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$$A = \pi + \gamma - \pi = \gamma - \pi \rightarrow \pi = 1$$

$$\begin{vmatrix} \pi + \gamma - \pi \\ \gamma - \pi + 1 \end{vmatrix}$$

$$\pi \rightarrow \pi + \gamma - \pi = \gamma - \pi + 1 \quad \pi = 1$$

$$\begin{vmatrix} \pi + \gamma - \pi \\ \gamma - \pi + 1 \end{vmatrix}$$

$$AH = 1 + \frac{1-1}{\sqrt{r}} = \frac{r}{\sqrt{r}}$$

$$C \rightarrow \gamma - \pi + 1 = \pi + \gamma - \pi \quad \pi = \frac{a}{r} \quad \gamma = \frac{v}{r}$$

$$\begin{vmatrix} \gamma - \pi + 1 \\ \pi + \gamma - \pi \end{vmatrix}$$

$$M = \begin{vmatrix} \frac{a}{r} + \frac{v}{r} - 1 \\ \frac{v}{r} + (-1) \end{vmatrix} = \frac{r}{r}$$

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

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$$\gamma + \frac{1}{r} \pi - C = 0$$

$$\frac{|b-C|}{\sqrt{1+\frac{1}{r}}} = \frac{C}{\frac{\sqrt{a}}{r}} = \sqrt{r} \rightarrow C = a$$

$$\gamma + \frac{1}{r} \pi - \omega = 0 \quad \begin{cases} \gamma = 0 \rightarrow \pi = 1 & (1, 0) \\ \pi = 0 \rightarrow \gamma = 1 & (0, 1) \end{cases}$$

$$\sqrt{(1-0)^2 + (0-1)^2} = \sqrt{2}$$

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$$\gamma_A = \pi(1-m) + r$$

$$\gamma_B = \frac{r}{m} \pi + r$$

$$\pi = 0 \rightarrow \gamma = r \quad (0, r)$$

$$\gamma = 0 \quad \begin{cases} \pi_A = \frac{r}{1-m} & \left(\frac{r}{1-m}, 0\right) \\ \pi_B = -\frac{m}{r} & \left(0, -\frac{m}{r}\right) \end{cases}$$

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

$$\begin{cases} m = r \\ m = r - \sqrt{a} \\ m = -r - \sqrt{a} \end{cases} \rightarrow r$$

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a

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

$$r = \frac{r}{r} + \frac{\pi_B}{r} \rightarrow \pi_B = \frac{a}{r}$$

$$\left(\frac{a}{r}, -r\right)$$

$$\gamma + r = r\left(\pi - \frac{a}{r}\right)$$

$$-r = \frac{0 + \gamma_B}{r} \rightarrow \gamma_B = -r$$

$$\gamma = \pi - 1$$

$$a = r$$

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$$m_{AA} = -1 \quad \gamma - r = -1(\pi - 1) \quad \gamma = -\pi + r$$

$$\begin{cases} \gamma = -\pi + r \\ \gamma = \pi + \omega \end{cases} \quad \gamma - r = r \quad \pi = -1 \quad \gamma = r$$

$$(a, b) = (-1, r)$$

$$r_b - a = r + 1 = 9$$

$$\frac{1+a}{r} = -1 \rightarrow a = -r$$

$$r_b - a = 10$$

$$\frac{r+\beta}{r} = r \rightarrow \beta = r$$

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