

نقاط A و B هم عرضی
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 رأس سهی است.

$$x_s = b = \frac{v-ra+ra+r^2}{r} = \frac{10}{r} = \omega \rightarrow \text{مقتضای } S \mid \omega$$

$$b \cdot r = \omega \cdot r = r^2$$

نقطه شش هابری نقطه A و B
 ضلعی مستند

$$\left. \begin{aligned} v-ra > 0 &\rightarrow a < r\omega \\ ra+r^2 > 0 &\rightarrow a > -r\omega \\ a-r > 0 &\rightarrow a > r \end{aligned} \right\} \cap \rightarrow a = r^2 \rightarrow \begin{cases} A(9,1) \\ B(1,9) \\ S(\omega, r^2) \end{cases}$$

$$y = a'(x-x_s)^r + y_s \rightarrow y = a'(x-\omega)^r + r^2 \xrightarrow{B(1,9)} 9 = a' + r^2 \rightarrow a' = \frac{9-r^2}{1-\omega}$$

$$\rightarrow y = \frac{1}{\lambda}(x-\omega)^r + r^2 \xrightarrow{C(0,0)} 0 = \frac{1}{\lambda}(-\omega)^r + r^2 \rightarrow \frac{1}{\lambda} = \frac{-r^2}{\omega} \rightarrow \omega = -\frac{r^2}{\lambda} \rightarrow |y| = \left| \frac{1}{\lambda} \right| = \frac{1}{\lambda}$$



جواب ۲

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$$\left. \begin{aligned} S &= a+B \\ P &= a \times B \end{aligned} \right\} \rightarrow x^2 - 5x + p = 0 \rightarrow ax^2 - ax - b = 0 \xrightarrow{\div a} x^2 - x - \frac{b}{a} = 0 \rightarrow \frac{-b}{a} = C$$

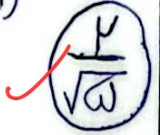
$$\frac{-b}{a} = C \rightarrow x^2 - x + C = 0 \rightarrow \begin{cases} S = a+B = \frac{-b}{a} = 1 \\ P = a \times B = C \end{cases} \rightarrow B^r - B + C = 0 \rightarrow B^r - B = -C \quad (1)$$

$$\Delta = b^2 - 4ac$$

$$r_0 B^r + r_0 a^r - r_0 B = 1 \xrightarrow{\div r_0} B^r + a^r - B = \frac{1}{r_0} \rightarrow (B^r + a^r) + (B^r - B) = \frac{1}{r_0}$$

$$(1) \text{ و } (1) \rightarrow (B^r + a^r) + (B^r - B) = 1 - r_0 C - C = 1 - r_0 C = \frac{1}{r_0} \rightarrow r_0 C = \frac{r_0 - 1}{r_0} \rightarrow C = \frac{r_0 - 1}{r_0}$$

$$|a-B| = \frac{\sqrt{\Delta}}{|a|} = \frac{\sqrt{1-\frac{1}{r_0}}}{1} = \sqrt{\frac{r_0-1}{r_0}} = \left(\frac{r_0-1}{r_0}\right)^{\frac{1}{2}}$$



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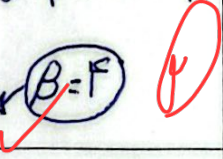
$$x_s = \frac{1-\omega}{r} = \frac{r}{r} = 1 \rightarrow x_s = \frac{b}{ra} = -r \rightarrow b = fa \rightarrow y = ax^2 + bx + c \rightarrow \begin{cases} b = fa \\ c = \text{محل تقاطع برت} \\ \text{موردی هابری مستند} \end{cases} a = \frac{1}{r}$$

$$\rightarrow y = a'x^2 + fa'x + \frac{r}{r} \xrightarrow{\text{مقتضای } S \text{ و } P} \begin{cases} x=1 \\ y=\frac{1}{r} \end{cases} \rightarrow \frac{1}{r} = fa' - \lambda a + \frac{r}{r} \rightarrow fa' = r \rightarrow a' = \frac{r}{f}$$

$$(a, b) \rightarrow \begin{cases} x=-\omega \\ y=B \end{cases} \rightarrow B = \frac{r\omega}{r} - 1 + \frac{r}{r} = \frac{r\omega - r + r}{r} = \frac{r\omega}{r} = \omega = \frac{1}{r}$$

$$\begin{cases} a = \frac{1}{r} \\ b = r \\ c = \frac{r}{r} \end{cases} \rightarrow y = \frac{x^2}{r} + rx + \frac{r}{r}$$

$$(1, B) \rightarrow \begin{cases} x=1 \\ y=B \end{cases} \rightarrow B = \frac{1}{r} + r + \frac{r}{r} = \frac{1+r+r^2}{r} = \frac{\Delta}{r} = f \rightarrow B = f$$



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انبار سهی معادسی

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} \rightarrow \begin{cases} \alpha < \beta \\ \alpha = \frac{-r - \sqrt{r^2 - 4a}}{2} = \frac{-r - r\sqrt{9-a}}{2} = -\frac{r}{2} - \frac{r\sqrt{9-a}}{2} \\ \beta = \frac{-r + \sqrt{r^2 - 4a}}{2} = \frac{-r + r\sqrt{9-a}}{2} = -\frac{r}{2} + \frac{r\sqrt{9-a}}{2} \end{cases}$$

$$\begin{cases} \alpha^r = (-\frac{r}{2} - \frac{r\sqrt{9-a}}{2})^r = 9 + 9 - a + r\sqrt{9-a} = 18 - a + r\sqrt{9-a} \\ \beta^r = (-\frac{r}{2} + \frac{r\sqrt{9-a}}{2})^r = 9 + 9 - a - r\sqrt{9-a} = 18 - a - r\sqrt{9-a} \end{cases} \rightarrow \begin{cases} r\alpha^r = \omega r^2 - ra + 11\sqrt{9-a} \\ r\beta^r = r^2 - ra - 11\sqrt{9-a} \end{cases}$$

$$r\alpha^r + r\beta^r = \omega r^2 - ra + 11\sqrt{9-a} + r^2 - ra - 11\sqrt{9-a} = 90 - \omega a + r\sqrt{9-a} = 12\sqrt{9-a} + 11\omega$$

$$90 - \omega a = 11\omega \rightarrow \omega a = \omega \rightarrow \omega = 1$$

$$r\sqrt{9-a} = 11\sqrt{9-a} \Rightarrow \sqrt{9-a} = 11\sqrt{r} \rightarrow \sqrt{9-a} = \sqrt{11} \rightarrow 9-a = 11 \rightarrow a = -2 \rightarrow \omega = 1$$



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$$\frac{1}{\sqrt{a}} + \frac{1}{\sqrt{b}} = \omega \rightarrow \frac{\sqrt{b} + \sqrt{a}}{\sqrt{a}\sqrt{b}} = \omega \xrightarrow{\text{مقتضای } S \text{ و } P} \frac{(\sqrt{a} + \sqrt{b})^r}{\alpha \times B} = r\omega \rightarrow \frac{\alpha + B + r\sqrt{\alpha B}}{\alpha \times B} = r\omega$$

$$\left. \begin{aligned} \alpha + B &= \frac{-b}{a} = \frac{m+1f}{r^2} \\ \alpha \times B &= \frac{c}{a} = \frac{1}{r^2} \end{aligned} \right\} \rightarrow \frac{\alpha + B + r\sqrt{\alpha B}}{\alpha \times B} = \frac{m+1f}{r^2} + r\sqrt{\frac{1}{r^2}} = r\omega \rightarrow \frac{m+1f}{r^2} + \frac{r}{r^2} = \frac{r\omega}{r^2}$$

$$\rightarrow m\alpha^r + r\alpha + f = 0 \rightarrow -x^r + r^2x + f = 0$$

$$\rightarrow \alpha \times B = \frac{c}{a} = \frac{1}{-1} = -1$$



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