

الف) $a > 0$ $-\frac{b}{2a} = \frac{4}{4} = 1 = x_{\text{رأس}}$ $y_{\text{رأس}} = 1 - 4 + 1 = -1$ $\left. \begin{array}{l} \text{ext} \left| \begin{array}{l} 1 \\ -1 \end{array} \right. \end{array} \right\}$ ۲

الف) $a < 0$ $-\frac{b}{2a} = \frac{-3}{-2} = \frac{3}{2} = x_{\text{رأس}}$ $y_{\text{رأس}} = -2 \times \frac{9}{4} + \frac{9}{2} - \frac{20}{2} = -\frac{9}{2} + \frac{18}{2} - \frac{20}{2} = -\frac{11}{2}$ $\left. \begin{array}{l} \text{ext} \left| \begin{array}{l} \frac{3}{2} \\ -\frac{11}{2} \end{array} \right. \end{array} \right\}$ ۲

الف) $\frac{c}{a} = 3 = x_{\text{رأس}} \rightarrow y_{\text{رأس}} = 9 - 18 + 1 = -8$ $\left. \begin{array}{l} \text{ext} \left| \begin{array}{l} 3 \\ -8 \end{array} \right. \end{array} \right\}$ $a > 0$ ۲

$-\frac{c}{a} = 2 = x_{\text{رأس}}$ $\left. \begin{array}{l} \text{ext} \left| \begin{array}{l} 2 \\ 5 \end{array} \right. \end{array} \right\}$ $a < 0$ ۲

$a + b + c + d = 0$ $7 + k - 9 - 2 = 0 \Rightarrow k = 4$ $a = 1$ $a + b = 1$ $b = 0$ $a \cdot b = 0$ \times

$a + (-b) - d = 0 \Rightarrow a + c = b + d$ $7 - 9 = k - 2$ $k = -2$ $a = -1$ $a \cdot b = -2$ $b = 2$ $a + b = 1$ ۳

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$\sqrt{a} - \sqrt{b} = 1 \xrightarrow{\text{توان ۲}} a + b - 2\sqrt{ab} = 1 \rightarrow 3m - 2\sqrt{m} = 1 \rightarrow 3m - 2\sqrt{m} - 1 = 0$

$\rightarrow m - 2\sqrt{m} - 3 = 0 \rightarrow (\sqrt{m} - 3)(\sqrt{m} + 1) = 0 \rightarrow \sqrt{m} = 1, \sqrt{m} = -1$ ۴

$m = 1 \rightarrow 2x^2 - x - 1 = 0 \rightarrow \frac{c}{a} = \text{ضرب} = -\frac{1}{2}$ ۲

$a + b + c = 0 \rightarrow x = 1, \frac{m}{2}$

$\frac{m}{2} \times \frac{\sqrt{\Delta}}{|a|} = \frac{m \times \sqrt{m^2 - 4m + 4}}{2} = \frac{m|m-2|}{2} = \frac{m}{2} \rightarrow m|m-2| = m$ ۲

$m \geq 2 \rightarrow m^2 - 2m - 3 = 0 \rightarrow m = 3, -1$ $y = x^2 + x + 1 \rightarrow x_5 = -\frac{1}{2}$ ۵

$m < 2 \rightarrow m^2 - 2m + 3 \rightarrow \Delta < 0$ جواب ندارد. $y = x^2 - \frac{m}{2}x + 1 =$ ۲

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$$y_p = \frac{-\Delta}{fa} = \frac{-b^r + fa}{fa} = \frac{-9 + fa^r}{fa} = \frac{V}{\Lambda} \rightarrow \Lambda a^r - V a - \Lambda = 0$$

$$a > 0$$

$$a_1, a_2 = \frac{V \pm \sqrt{10000}}{14} \rightarrow a_1 > 0, a_2 < 0$$

بجواب a

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$$a = B + r \rightarrow \frac{\sqrt{\Delta}}{|a|} = B + r - B = r = \sqrt{a^r + ra + 1 - fa}$$

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$$\rightarrow |a - 1| = r \rightarrow a = \begin{cases} 1+r \\ 1-r \end{cases}$$

$a > 0$ $a^r - (a+1)a + a = \dots \rightarrow \begin{cases} x_1 = 1 \\ x_2 = a \end{cases} \rightarrow x_2 = r$
 $a^r - (r(r)+1)a + b = \dots \rightarrow a^r - ka + b = \dots \rightarrow \begin{cases} a_1 = r \\ a_2 = r \end{cases}$
 $r \times 1 - r \times r = -r$
 $r \times 1 - r \times r = -r$

$$x_s = \frac{1}{r} \quad y_s = \frac{-a^r + \Lambda a}{-fa} \quad x_s = \frac{1}{r} \quad y_s = \frac{-b^r - \Lambda b}{\Lambda b}$$

$$y = -a x^r + a x + r$$

$$y = r x^r - b x - 1$$

$$b - a = -r - r = -2r$$

$$\frac{-a^r + \Lambda a}{-fa} = \frac{b}{r} - \frac{b}{r} - 1 \rightarrow -a^r + \Lambda a = fa \rightarrow a = r > 0$$

جواب با این است

$$\frac{-b^r - \Lambda b}{\Lambda b} = \frac{-a}{r} + \frac{a}{r} + r \Rightarrow \Lambda \Lambda b = fa - r b \Rightarrow fb(b + r) = 0$$

$$\left. \begin{matrix} x_s > 0 \\ y_s > 0 \end{matrix} \right\} \text{ جواب}$$

$$B = 0 > a$$

$$x + \left| \frac{-b}{fa} = \frac{-r}{1000} > 0 \right.$$

$$\left. -\frac{\Delta}{fa} = \frac{-14}{1000} > 0 \right.$$

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$$s = \frac{-b}{a} = a^r + b^r - 1r = a + b, \quad p = \frac{c}{a} = ab = a + b - 1$$

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$$\rightarrow ab + 1 = a^r b^r + rab + 1 - rab - 1r \rightarrow (ab - r)(ab + r) = 0$$

$$a + b = \frac{r}{ab + 1} = r + 1 = a \quad \checkmark \quad \frac{r}{x}$$

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$$y = -ax^r + ax + r \rightarrow S\left(\frac{1}{r}, \frac{a^r + \lambda a}{ra}\right)$$

$$y = rbx^r - bx - 1 \rightarrow S\left(\frac{1}{r}, \frac{b^r + \lambda b}{-\lambda b}\right)$$

$$\rightarrow r b \left(\frac{1}{r}\right) - b \left(\frac{1}{r}\right) - 1 = \frac{a}{r} + r \rightarrow \frac{a}{r} = -r$$

$$\boxed{a = -1r}$$

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

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