

$$\frac{-b}{2a} \leq 2 \rightarrow \frac{-1}{2(a-1)} \leq 2 \rightarrow -1 \leq 2a-2 \rightarrow a \leq \frac{1}{2}$$

$$\rightarrow (-\frac{1}{2})x^2 + x + 3 = 0 \rightarrow \frac{-1 \pm \sqrt{1+12}}{-\frac{1}{2}} \leq \frac{-1 \pm 2}{-\frac{1}{2}}$$

طلبتی: 4 ✓
-2 ✗

$$\Delta > 0 \rightarrow 2a - 4m^2 > 0 \rightarrow (a-2m)(a+2m) > 0 \quad \frac{-\frac{a}{2} \pm \frac{a}{2}}{-a \pm a} \quad (II)$$

$$a < 0 \rightarrow m < 0 \quad (I)$$

$$I \cap II : -\frac{a}{2} < m < 0$$

نویس به جدول و max و min

$$S : \frac{3-\sqrt{a}}{2} + \frac{3+\sqrt{a}}{2} = 2$$

$$P : \frac{3-\sqrt{a}}{2} \times \frac{3+\sqrt{a}}{2} = \frac{(9-a)}{4} = \frac{4}{9}$$

$$\left. \begin{aligned} &\rightarrow x^2 - Sx + P = 0 \rightarrow x^2 - 2x + \frac{4}{9} = 0 \\ &\quad \times 9 \rightarrow 9x^2 - 18x + 4 = 0 \end{aligned} \right\}$$

معادله کردن فزاید

مربع کردن فزاید

$$\alpha + \beta > 1 \rightarrow \beta < 1 - \alpha \rightarrow \alpha^2 + (1 - \alpha)^2 > 1 \rightarrow \alpha^2 - 2\alpha + 1 > 0 \rightarrow (\alpha - 1)^2 > 0$$

$$\rightarrow \alpha < 1 \rightarrow \beta < 1 - \alpha \rightarrow \frac{c}{a} > \alpha \cdot \beta > \frac{m+r}{r} > \alpha > m > r$$

$$y > ax^2 + bx + c \xrightarrow{1 \cdot a} c > a \rightarrow y > ax^2 + bx + a$$

$$S(x, y) \rightarrow \frac{-b}{2a} > x \rightarrow b < -2a \rightarrow ax^2 + (-2a)x + a > y \xrightarrow{(x, y)} -a - 2a + a > y$$

$$\rightarrow -a > y \rightarrow a < -1, b < -2(-1) > 2 \rightarrow -x^2 + 2x + a > y \text{ در } x=0$$

$$-x^2 + 2x + a > 0 \rightarrow x^2 - 2x - a < 0 \rightarrow (x - 1)(x + 1) < 0 \rightarrow \frac{-1}{+} \frac{+}{-} \frac{+}{+} \rightarrow -1 < x < 1$$

$$[-1, 1]$$

$$P > \alpha \cdot \beta > \frac{9\beta}{\alpha} \rightarrow \alpha > \frac{9}{\beta}$$

$$S > \alpha + \beta > \frac{1}{r} \xrightarrow{\alpha > -r} \beta > \frac{1}{r} \xrightarrow{\alpha > r} \beta > -\frac{1}{r}$$

$$\xrightarrow{\beta > 0} \alpha > -r, \beta > \frac{1}{r} \rightarrow \frac{1}{\alpha} + \frac{1}{\beta} > -\frac{1}{r} + \frac{r}{1} > \frac{1}{9}$$

✓

$$\alpha^2 - m\beta s - m\alpha + r m - m\beta s - m(\alpha + \beta) + r m s + 1 \rightarrow 4m^2 + r m - 1 s = 0$$

$$S = -\frac{b}{a} s - m$$

$$\rightarrow (m+r)(m-r) s = 0 \quad \begin{matrix} \rightarrow m s = r \\ \rightarrow m s = r \end{matrix}$$

$$\rightarrow \text{if } m s = r \rightarrow \Delta < 0 \rightarrow \text{no solution} \rightarrow m s = r$$

$$\text{if } m s = r \rightarrow \Delta > 0 \rightarrow \checkmark$$

$$\rightarrow x^2 + r x - r s = 0 \rightarrow S = -\frac{b}{a} s - r$$

Λ

$$f(x) = m x^2 + r x + \frac{m+1}{r} \rightarrow \frac{-\Delta}{2a} s + 1 \rightarrow \frac{-(14 - r^2 \frac{(m+1)}{r})}{2m} s + 1$$

$$\rightarrow \frac{r m^2 + r m + 14}{2m} s + 1 \rightarrow r m^2 - r m + 14 s = 0 \rightarrow m^2 - r m + r s = 0 \rightarrow (m+r)(m-r) s = 0$$

$$\rightarrow m s = \frac{r}{r} s = r \quad \checkmark (\Delta > 0) \rightarrow -r x^2 + r x + 4 s = 0 \quad \begin{matrix} \rightarrow -1 \times x_1 \\ \rightarrow +r \times x_1 \end{matrix} \rightarrow k$$

$$\rightarrow m s = \frac{1}{r} s \quad \checkmark (\Delta < 0)$$

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$$S(r, 4) : (0, 4) \rightarrow a x^2 + b x + c y \xrightarrow{1^2} c s + 1 \rightarrow a x^2 + b x + r s y$$

$$-\frac{b}{2a} s \rightarrow b s - 2a \rightarrow a x^2 + (-2a) x + r s y \xrightarrow{(r, 4)} r a - 2a + r s y + -2a \cdot r$$

$$\rightarrow a s = -\frac{1}{r} \quad b s = -2(-\frac{1}{r}) s \rightarrow -\frac{1}{r} x^2 + r x + r s y$$

$$x^2 - 6x - 1 s = 0 \rightarrow x = \frac{6 \pm \sqrt{36 + 4s}}{2} = 3 \pm \sqrt{9 + s}$$

$$\xrightarrow{\text{نوع عوض}} \frac{1}{3 + \sqrt{9 + s}} + \frac{1}{3 - \sqrt{9 + s}} = \frac{3 - \sqrt{9 + s} + 3 + \sqrt{9 + s}}{9 - 12} = \frac{6}{-3} = -2$$

$$x^2 - 2x - 1 + r x^2 + 4x + r s = 0 \rightarrow r x^2 - 2x - 1 s = 0 \xrightarrow{a+b+c=0} 1 \text{ یا } -\frac{1}{r} (x)$$

$$S = r + 2x \rightarrow 2 + 2x - 2 = 2 + 2x \quad \begin{matrix} x=1 \\ x=-1/2 \end{matrix} \rightarrow x=1 \text{ یا } x=-1/2$$

مورد مقدار α قابل قبول است.

به α مقدار دیگری می‌دهیم