

۲۰ عالی زشته!

$$-\frac{b}{4a} = 2 \Rightarrow -\frac{1}{4-2} = 2 \Rightarrow a = \frac{3}{4} \quad x > 0$$

معادله جدید: $-\frac{1}{4}x^2 + x + 3 = 0$ $x_1 = 4$ ✓
 $x_2 = -2$ ✓



شرط ۱: $m < 0$

بین دو ریشه مثبت و خارج دو ریشه منفی بوده پس $m < 0$ بود

اشتراک: $m \in (-\frac{9}{2}, 0)$ ✓

شرط ۲: $\Delta > 0 \Rightarrow 4-4m^2 > 0 \Rightarrow m \in (-\frac{1}{2}, \frac{1}{2})$

$$-\frac{b \pm \sqrt{\Delta}}{2a} = \frac{3 \pm \sqrt{4}}{2} = \frac{2(3 \pm \sqrt{4})}{2(2)} \Rightarrow b = -4, a = 2$$

c: $b^2 - 4ac = 4 \Rightarrow c = \frac{4}{2}$

معادله حاصل: $2x^2 - 4x + \frac{4}{2} \Rightarrow 2x^2 - 4x + 2$ ✓

$$2x^2 - 4x + m + 2 = 0 \rightarrow 2\alpha^2 + \beta^2 = 2(\alpha^2 + \beta^2) + (\alpha - \beta)(\alpha + \beta)$$

$$\rightarrow 2(\frac{1}{2} - 2p) + (\frac{-\sqrt{\Delta}}{|a|})(s) = 12 \rightarrow 2(12 - m) - 2\sqrt{16 - 4m} = 12$$

$\Rightarrow 12 - m = 2\sqrt{12 - m} \Rightarrow m^2 - 16m + 48, 48 - 12m \Rightarrow m = 4$ ✓

$c = 0 \quad y = ax^2 + bx + c \quad -\frac{b}{4a} = 2 \Rightarrow 4a = -b$

$$-\frac{\Delta}{4a} = -\frac{b^2 - 4ac}{4a} = 9 = \frac{b^2 - 0b}{b} = 9 \Rightarrow b = 4, a = -1$$

معادله: $-x^2 + 4x + 0$ $x_1 = 0$
 $x_2 = -1$

$$\frac{-1}{-1} = 1$$

بازه: $(-1, 0)$ ✓

$$\eta = \beta \rightarrow \alpha \beta^r + r\beta = 0 \rightarrow \beta(\alpha\beta + r) = 0 \rightarrow \beta \neq 0 \Rightarrow \alpha\beta = -r \Rightarrow \beta = -\frac{r}{\alpha} \quad (2)$$

$$S = \frac{V}{\alpha} = \alpha + \beta \Rightarrow \alpha - \frac{r}{\alpha} = \frac{V}{\alpha} \rightarrow \alpha = \frac{V+r}{\alpha} \quad \text{غلط } B > 0$$

$$\left(\frac{1}{\alpha} + \frac{1}{\beta} = \frac{V}{\gamma} \right) \checkmark$$

$$-m\beta = \beta^r - rm \Rightarrow \alpha^r + \beta^r - rm = \Lambda \Rightarrow m^r + rm = \Lambda \rightarrow m = -r \rightarrow \Delta < 0 \quad \text{غلط}$$

$$S = -m$$

$$P = -rm$$

$$\text{معادله: } \eta^r + rm - r = 0 \quad (S = -r) \checkmark$$

$$\Delta > 0 \Rightarrow m \in (-r, 0)$$

$$-\frac{\Delta}{r\alpha} = \frac{-m^r - rm + \Lambda}{rm} = \Lambda \Rightarrow m_1 = -r \quad \text{معادله: } -rm^r + rm + \gamma$$

$$m_2 = r \quad \text{غلط } m < 0$$

$$\text{معادله: } -1, r$$

$$K > 0 \Rightarrow K = r \checkmark$$

$$\frac{1}{\alpha} + \frac{1}{\beta} = \frac{S}{P} \quad \text{معكوس شده}$$

$$\text{معادله: } a(\eta - r)^r + \gamma \xrightarrow{\eta=0, r=r} a = -\frac{1}{r} \quad \text{معادله: } -\eta^r + rm + \Lambda$$

$$\frac{1}{\alpha} + \frac{1}{\beta} = \frac{S}{P} = \frac{r}{-\Lambda} = \left(-\frac{1}{r} \right) \checkmark \quad S = r, P = -\Lambda$$

$$\eta = r, \quad r\eta^r - r\eta - 1 = 0 \rightarrow a = -\frac{1}{r} \quad \Delta > 0 \quad \text{غلط}$$

$$a = 1 \quad \Delta > 0 \quad \text{غلط}$$

$$\text{if } a = 1$$

$$\eta^r - \Lambda\eta + 1r \rightarrow \eta = r \quad \eta = r$$

$$\text{if } a = -\frac{1}{r} \rightarrow \eta^r - \frac{\Lambda}{r}\eta + \frac{r}{r} \rightarrow \eta = r$$

$$\eta = \frac{r}{r} \checkmark$$