

$$\frac{-b}{2a} = -1 \Rightarrow b = 2a / x = -1 \Rightarrow a - b + c = 1 \Rightarrow -a + c = 1$$

$$x = 2 \Rightarrow 4a + 2b + c = 1 \Rightarrow 4a = -1 \Rightarrow a = -\frac{1}{4} \Rightarrow b = 2\left(-\frac{1}{4}\right) = -\frac{1}{2}$$

$$c = 1 - \frac{1}{4} = \frac{3}{4}$$

$$y = -\frac{1}{4}x^2 - x + \frac{3}{4}$$

$$y = 2x^2 + mx + m + 4 = 0 \Rightarrow \text{دو ریشه دارد} \Rightarrow m^2 - 4(2m + 12) > 0$$

$$\Rightarrow m^2 - 8m - 48 > 0 \Rightarrow (m + 4)(m - 12) > 0 \Rightarrow \begin{array}{c|c|c} -4 & & 12 \\ + & - & + \end{array}$$

$$\Rightarrow 1) m \in (-\infty, -4) \cup (12, +\infty)$$

$$2) S = -\frac{m}{2} > 0 \Rightarrow m < 0$$

$$3) \frac{m+4}{2} > 0 \Rightarrow m > -4$$

$$\left. \begin{array}{l} 2, 3 \end{array} \right\} \xrightarrow{\text{اشتراک}} -4 < m < 12$$

$$2x^2 + (2m-1)x + 2-m = 0 \Rightarrow \text{دو ریشه دارد} \Rightarrow 4m^2 + 1 - 2m - 4(2-m) > 0$$

$$\Rightarrow 2m^2 + 11m - 22 > 0 \Rightarrow m = \frac{-11 \pm \sqrt{121 - 4(-92)}}{4} = \frac{-11 \pm \sqrt{2^2(2^2+23)}}{4}$$

$$= \frac{-11 \pm \sqrt{2^2(2^2+23)}}{4} \Rightarrow \begin{array}{c|c|c} -11 & & 11 \\ + & - & + \end{array} \Rightarrow$$

$$1) m \in (-\infty, -11) \cup (-11 + \sqrt{2^2(2^2+23)}, +\infty)$$

$$2) \alpha + \beta = \frac{1}{2a} \Rightarrow \frac{-2m+1}{2} = \frac{1}{2-m} \Rightarrow 2m^2 - 2m - 1 = 0 \Rightarrow (2m-1)(m+1) = 0$$

$$\Rightarrow m \in \left\{ \frac{1}{2}, -1 \right\} \quad \left. \begin{array}{l} 2, 3 \end{array} \right\} \xrightarrow{\text{اشتراک}} m = \frac{1}{2}$$

$$x^2 - x - 2 = 0 \Rightarrow S = 1, P = -2$$

$$x_1^c + x_1^c + \frac{1}{x_1} + \frac{1}{x_1} = (x_1 + x_1)^c - c(-2)(x_1 + x_1) + \frac{x_1 + x_1}{x_1 x_1} = \frac{1}{-2}$$

$$1 + 1 + \frac{-1}{2} = \frac{0}{2} = 0 \quad \checkmark$$

$$(x_1^c + \frac{1}{x_1})(x_1^c + \frac{1}{x_1}) = (x_1 x_1)^{-2} + x_1^c + x_1^c + \frac{1}{x_1 x_1} = -2 + 1 + 1 = 0$$

$$y = x^2 - \frac{0}{2} x - \frac{1}{2} \quad \checkmark$$

$$\sqrt{x^2} = t \Rightarrow (t + \frac{1}{t} + 1)(t - 1) = t^2 - \frac{1}{t} \Rightarrow \sqrt{x^2} - \frac{1}{\sqrt{x^2}} = 2 \sqrt{x^2} \quad (5)$$

$$\Rightarrow \frac{\sqrt{x^2} - 1}{\sqrt{x^2}} = 2 \sqrt{x^2} \Rightarrow x^2 - 1 = 2x \Rightarrow x^2 - 2x - 1 = 0 \Rightarrow S = 2 \quad \checkmark$$

$$x^2 - ax + 2 = 0, a = c\beta \Rightarrow P = \frac{2}{c} \Rightarrow c\beta^2 = \frac{2}{c} \Rightarrow \beta^2 = \frac{2}{c} \Rightarrow \beta = \sqrt{\frac{2}{c}} \quad (6)$$

$$\Rightarrow a = \begin{cases} 0^+ \\ 0^- \end{cases} \Rightarrow S = \begin{cases} 0^+ = \frac{a}{c} \Rightarrow a = 1 \\ 0^- = -\frac{a}{c} \Rightarrow a = -1 \end{cases} \Rightarrow 1 - (-1) = 2 \quad \checkmark$$

$$y = ax^2 + (c + 2a)x \Rightarrow 0 \quad a > 0$$

$$\Delta > 0 \Rightarrow 9 + 4a^2 + 12a > 0 \Rightarrow (2a + 3)^2 > 0 \Rightarrow a \neq -\frac{3}{2} \quad (7)$$

$$(3) S > 0 \Rightarrow \frac{-c - 2a}{a} > 0 \Rightarrow -\frac{c}{a} > 2$$

$$0, 1, 2, 3 \Rightarrow \text{انتخاب} \Rightarrow \text{مستطیل} \quad \text{DATE:}$$

$$y = -x^2 - 2x + b, y = x^2 + \alpha x - 2 \Rightarrow \frac{-b}{r\alpha} = \frac{r}{-r} = \frac{-\alpha}{r} \Rightarrow \alpha = r \quad (1)$$

$$\begin{cases} 1 = -x^2 - 2x + b \\ 1 = x^2 + 2x - r \end{cases} \Rightarrow r = -2 + b \Rightarrow b = 3 \quad \text{and} \quad ab = r \times \Sigma = 1$$

$$ra x^2 + \alpha x - r = 0 \Rightarrow S = \frac{-\alpha}{ra} = \frac{-1}{r}, p = \frac{-r}{r} = -1 \quad (9)$$

$$rx^2 - \alpha x + b = 0 \Rightarrow S = \alpha + \frac{1}{r} + \beta + \frac{1}{r} = -\frac{1}{r} + \frac{1}{r} + \frac{1}{r} = \frac{-(-\alpha)}{r} \Rightarrow \alpha = 1$$

$$P = (\alpha + \frac{1}{r})(\beta + \frac{1}{r}) = \alpha\beta + \frac{1}{r}(\alpha + \beta) + \frac{1}{r} = \frac{+b}{r} \Rightarrow -r + \frac{1}{r}(-\frac{1}{r}) + \frac{1}{r} = \frac{+b}{r} \Rightarrow b = -4$$

$$ab = (-4) \times 1 = -4 \Rightarrow \left[\frac{ab}{\Sigma} \right] = \left[-\frac{4}{r} \right] = -2$$

$$1) x^2 + 4x + m = 0 \Rightarrow S = -4 \Rightarrow \alpha = -4 - \beta \quad (1)$$

لے ایسے مشترک

$$2) x^2 + 2x - 3m = 0 \Rightarrow S = -2 \Rightarrow \alpha = -2 - \delta$$

$$0, \delta \Rightarrow -4 - \beta = -2 - \delta \Rightarrow \delta - \beta = 2$$

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