

$$\frac{-b}{2a} = \Delta = \alpha + \beta \quad \frac{c}{a} = 2 = \alpha \times \beta$$

$$P^1 = \Delta B - 2$$

$$B^1 = P(P^1) = P(\Delta B - 2) = \Delta(\Delta B - 2)$$

$$B^2 = P(B^1) = 1 \cdot \Delta B - 4$$

$$\frac{19(2\Delta B - 10)}{2\Delta B - 10} = 19 \quad B^3 = P(B^2) \rightarrow P(10\Delta B^2 - 44) \Rightarrow \frac{10 - 4\beta + 4 \cdot 9\beta - 20}{2\Delta B - 10}$$

$$\frac{-1/5 + 3}{2} = 6,75$$

$$\frac{x_1 + x_2}{2} = 0,75$$

$$\rightarrow x_1 + x_2 = 1,5$$

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$$x_1, x_2 = \frac{-b \pm \sqrt{\Delta}}{2a} = \frac{-2K \pm \sqrt{4K^2 - 20}}{2} = -2 \pm \sqrt{K^2 - 5}$$

$$x_1 = -2 + \sqrt{K^2 - 5}$$

$$x_2 = -2 - \sqrt{K^2 - 5}$$

$$x_1 - x_2 = 2\sqrt{K^2 - 5} = \frac{4}{3}K$$

$$\sqrt{K^2 - 5} = \frac{2}{3}K \rightarrow \frac{4}{9}K^2 = 5 \rightarrow K^2 = 9$$

$$\left[\frac{K^2}{2}\right] = \left[\frac{9}{2}\right] = 4$$

$$\frac{-5 + 3}{2} = -1 = \frac{-b}{2a} \rightarrow b = 2a$$

$$C = -\frac{1}{3}$$

$$x_1 + x_2 = \alpha + \beta = 2 \quad \alpha^2 + \beta^2 = (\alpha + \beta)^2 - 2\alpha\beta \rightarrow \Delta = 4 - 2\alpha\beta$$

$$y = ax^2 + bx + c$$

$$\frac{-b-a}{a} = 1 \rightarrow a = -\frac{r}{p}$$

$$C = a + 1 = -\frac{r}{p} + 1 = \frac{1}{p}$$

$$\alpha = \frac{2}{3}$$

$$\frac{-b \pm \sqrt{\Delta}}{2a} \leq \frac{a}{r} \rightarrow -5 \pm \sqrt{25 + 4m} \leq \pm \sqrt{25 + 4m} \leq 4$$

$$25 + 4m \leq 16 \rightarrow m \geq -\frac{9}{4} = -2,25 \rightarrow m = -3, -4, -5, -6$$

$$m \leq -\frac{9}{4} = -2,25$$

$$\frac{-\Delta}{Fa} = 2 \rightarrow -\Delta = 12a \rightarrow -b' + 12a = 12a \rightarrow -12 + 12m - 12m = 12m$$

$$12m^2 - 12m - 12 = 0 \rightarrow 2m^2 - 2m - 2 = 0 \rightarrow (m-1)(m+1) = 0$$

$$m = \frac{1 \pm \sqrt{1+4}}{2} = \frac{1 \pm \sqrt{5}}{2}$$

$$m = \frac{1 + \sqrt{5}}{2} \quad m = \frac{1 - \sqrt{5}}{2}$$

$$m = \frac{-b}{2a} = \frac{12}{4} = 3$$

$$x^2 + 2(a+1)x + 2a - 1 \quad a=1 \rightarrow x^2 + 4x + 1 = 0 \rightarrow \Delta > 0 \rightarrow \text{دو ریشه دارد}$$

$$\frac{-b \pm \sqrt{\Delta}}{2a} = x_1 = -a - 1 + \sqrt{a^2 + 2}$$

(1,5)

$$x_2 = -a - 1 - \sqrt{a^2 + 2} \quad a^2 - 2a + 1 = 0 \rightarrow a = 1 \quad \Delta < 0$$

$$a^2 = a^2 \quad a^2 = (a-1 + \sqrt{a^2 + 2})(-a-1 - \sqrt{a^2 + 2}) \rightarrow a^2 - 2a + 1 = 0$$

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$$x^2 + \dots + \dots = 0 \quad 12p^2 - 12p + 12 = 12 \left(-\frac{1 \pm \sqrt{1-4}}{2} \right)^2 =$$

$$\frac{1}{12} (49 + 99 + 14\sqrt{99}) = 29 + \sqrt{99}$$

$$p = -\frac{1 \pm \sqrt{99}}{2}$$

$$\frac{-b \pm \sqrt{\Delta}}{2a} = \frac{1 \pm \sqrt{99}}{2} = x_1 = \frac{1 \pm \sqrt{99}}{2}$$

(1,5)

$$D = \frac{-1 \pm \sqrt{99}}{2}$$

$$S = x_1 + x_2 = 0$$

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$$x_2 = -\frac{b}{2a} = \frac{f}{2k} = \frac{1}{k} \rightarrow y_{\text{وسط}} = -\frac{\Delta}{Fa} = \frac{-12 - 12fk}{fk} = \frac{-12 - 12fk}{fk}$$

$$\frac{-12 - 12fk}{fk} = \frac{-12}{k} - 12 = \frac{-12 - 12fk}{k} = -12 - 12fk = -12 + 12fk \quad (2)$$

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$$y_{\text{وسط}} = \frac{-12 - 12}{2} = -12 \quad \checkmark$$

$$2k = f \rightarrow k = 1$$

$$y = y \rightarrow -m - x = -mx^2 + mx + 1 \rightarrow -mx^2 + (m+1)x + m + 1$$

$$\Delta < 0 \rightarrow m^2 + 2m + 1 - 4(-m)(m+1) < 0 \quad (2)$$

$$\frac{-1 \pm \sqrt{1-4}}{2} = \frac{-1 \pm \sqrt{-3}}{2}$$

$$m^2 + 2m + 1 < 0 \rightarrow m^2 + 2m + 1 < 0 \quad -1 < m < -1$$

$$(m+1)(m+1) < 0 \rightarrow m = -1, -1$$

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