

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

$$x = \frac{-1 \pm \sqrt{1+4}}{-\frac{1}{2}} \rightarrow \begin{matrix} -2 \\ 4 \end{matrix} \quad \text{قوة}$$

$$(1) m < 0 \quad (2) \Delta > 0 \rightarrow 2\omega - 4(m') > 0 \rightarrow 2\omega > 4m' \rightarrow m' < \frac{1}{2}\omega \rightarrow -\frac{1}{2}\omega < m' < \frac{1}{2}\omega$$

$$\rightarrow (1) \cap (2) : (-\frac{1}{2}\omega, \frac{1}{2}\omega)$$

$$S = \frac{3 - \sqrt{5} + 3 + \sqrt{5}}{2} = 3$$

$$D = \frac{3 - \sqrt{5}}{2} \times \frac{3 + \sqrt{5}}{2} = \frac{9 - 5}{4} = 1$$

$$y = x^2 - 2x + \frac{4}{9}$$

$$\alpha\beta = \frac{9B}{A} \rightarrow \alpha = \pm 3$$

$$\alpha + \beta = \frac{V}{A} \rightarrow \begin{matrix} \alpha = 3 \\ \alpha = -3 \end{matrix} \quad \begin{matrix} \beta = \frac{V}{A} \\ \beta = -\frac{V}{A} \end{matrix} \quad \begin{matrix} -\frac{1}{3} + \frac{1}{3} = \frac{V}{4} \\ -\frac{1}{3} - \frac{1}{3} = -\frac{2}{3} \end{matrix}$$

$$-\frac{b}{2a} = 1 \rightarrow b = -2a \quad y = ax^2 + bx + a \quad \begin{matrix} 1 \\ 4 \end{matrix} \rightarrow 1 = 2a + b \rightarrow -2a = 1 \rightarrow \boxed{a = -1} \quad \boxed{b = 2}$$

$$y = -x^2 + 2x + a \rightarrow x^2 - 2x - a = 0 \rightarrow (x+1)(x-a) = 0 \quad \begin{matrix} 1 & -1 & a \\ 1 & + & - & + \end{matrix}$$

$$\boxed{(-1, a)}$$

$$\alpha + \beta = 4 \quad \alpha\beta = \frac{m+1}{2} \quad \beta = 4 - \alpha \rightarrow \alpha^2 - (4 - \alpha) = 1 \rightarrow \alpha^2 - 3\alpha + 1 = 0 \quad (K)$$

$$(\alpha - 1)^2 = 0 \quad \alpha = 1 \Rightarrow \beta = 3 \rightarrow \alpha\beta = 3 = \frac{m+1}{2} \rightarrow \boxed{m = 5}$$

$$\alpha^2 = -m\alpha + 1 \Rightarrow -m\alpha - m\beta + 1 = 1 \rightarrow -m(\alpha + \beta - 1) = 1 \rightarrow m^2 + 1m - 1 = 0 \quad (V)$$

$$m \rightarrow -1 \Rightarrow \Delta < 0 \quad \text{قوة}$$

$$\rightarrow 1 \rightarrow x^2 + 1x - 1 = 0 \quad \boxed{S = -1}$$



$$\frac{-\Delta}{ka} = 1 \rightarrow -14 + 2m^2 + 2nm = 22m \rightarrow 2m^2 - 2m - 14 = 0 \rightarrow (2m-1)(m+7) = 0$$

$$m \xrightarrow{+7} \rightarrow \text{ق ق ع}$$

$$m \xrightarrow{-7} \rightarrow -2x^2 + 4x + 4 = 0 \rightarrow (x+1)(-2x+4) = 0 \quad x \xrightarrow{-1} \rightarrow 2 \rightarrow 3 \rightarrow K$$

$$\boxed{K=3}$$

$$\frac{b}{ka} = 1 \rightarrow b = -ka \quad \frac{\Delta}{-ka} = 4 \rightarrow \frac{b^2 - ka(4)}{b} = 4 \rightarrow b^2 + kb = 4b \quad (9)$$

$$b(b-1) = 0 \quad b \xrightarrow{+1} \rightarrow 2 \quad x \rightarrow y = -\frac{x^2}{2} + 2x + 4$$

$$\frac{1}{a} + \frac{1}{b} = \frac{a+b}{ab} = \frac{1}{4}$$

$$x=1 \rightarrow 2a^2 - 2a - 1 = 0 \rightarrow a \rightarrow 1 \rightarrow x^2 - 11x + 12 = 0 \quad x \xrightarrow{+12} \rightarrow 2 \rightarrow 4$$

$$\rightarrow -\frac{1}{2} \rightarrow 2x^2 - 11x + 4 = 0 \quad x \xrightarrow{+4} \rightarrow 2 \rightarrow \frac{1}{2}$$

$$\boxed{x \xrightarrow{+12} \rightarrow 2 \rightarrow 4}$$

بیخسیر سوال ۴ و ۲ رو جایجا نوشتیم. اولس ۴ رو آستیا به حل کرده بودیم. :)