

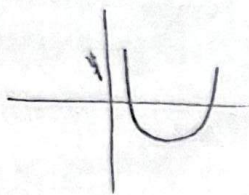
$$\frac{-b}{2a} = -1 \Rightarrow b = 2a \quad \Rightarrow ax^2 + 2ax + c = y = (-1, 9) : 9 = a - 2a + c$$

$$\Rightarrow a + c = 9 \quad (2+1) : 1 = 9a + 4a + c \Rightarrow 13a + c = 1$$

$$13a + c = 1$$

$$\hline$$

$$a = -\frac{1}{12} \quad b = -1 \quad c = \frac{13}{12} \quad \Rightarrow -\frac{1}{12}x^2 - x + \frac{13}{12} = y$$



$$\Rightarrow \Delta' > 0 \quad \Rightarrow \frac{-m}{4} > 0 \Rightarrow m < 0$$

$$\Rightarrow P > 0 \quad \frac{m+4}{4} > 0 \Rightarrow m > -4$$

$$\Rightarrow \Delta > 0 \quad m^2 - 11m - 21 > 0 \quad \frac{-2}{+1} - \frac{11}{+1} \Rightarrow R = [-2, 13]$$

$$\cap \Rightarrow -4 < m < -2$$

$$\frac{-b}{a} = \frac{1}{\frac{c}{a}} \Rightarrow \frac{-b}{a} = \frac{a}{c} \Rightarrow \frac{1-2m}{4} = \frac{4}{2-m}$$

$$\Rightarrow 9 = 4 - 2m - m + 2m^2 \Rightarrow 2m^2 - 3m - 5 = 0 \Rightarrow m = \frac{3 \pm \sqrt{33}}{4} \quad m = -1$$

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

$$y = x^2 - 2 \Rightarrow x_1 = 2 \quad x_2 = -2$$

$$x_1^2 + \frac{1}{x_1} = -1 + \frac{1}{2} \quad x_2^2 + \frac{1}{x_2} = 1 - \frac{1}{2}$$

$$\Rightarrow x^2 - 5x + 6 = x^2 - 5x - \frac{4x}{x} \quad \frac{4x}{x}$$

$$\left(\sqrt[4]{x^4} + \frac{1}{\sqrt[4]{x^4}} + 1 \right) (\sqrt[4]{x^4} - 1) = \sqrt[4]{x^4}$$

$$x \sqrt[4]{x^4} = (\sqrt[4]{x^4})^4 + 1 + \sqrt[4]{x^4} \cdot (\sqrt[4]{x^4} - 1) = 2x$$

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

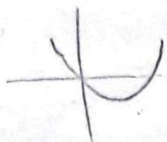
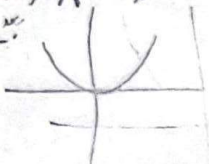
$$V' < 0, \forall x \Rightarrow P = V' < 0 = \frac{\varepsilon}{\varepsilon} \Rightarrow V' = \frac{\varepsilon}{\varepsilon} \Rightarrow V' = \pm \frac{\varepsilon}{\varepsilon}$$

$$\frac{1}{\varepsilon} : n' - 5n + P \Rightarrow n' - \frac{1}{\varepsilon} n + \frac{\varepsilon}{\varepsilon} \xrightarrow{\times \varepsilon} \varepsilon n' - n + \varepsilon$$

$$\frac{1}{\varepsilon} : n' - 5n + P \Rightarrow n' + \frac{1}{\varepsilon} n + \frac{\varepsilon}{\varepsilon} \xrightarrow{\times \varepsilon} \varepsilon n' + n + \varepsilon$$

$$Q(1) = 1 - (-1) = \frac{1}{2}$$

في حالتي $a > 0$ و $a < 0$



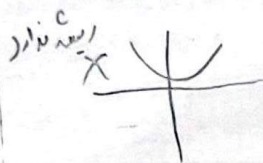
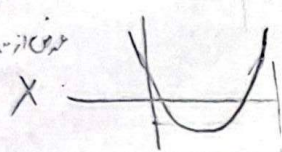
$a > 0$

$$an^2 + (c + 2a)n - y$$

$$\Delta \geq 0 \Rightarrow \frac{-(c+2a)^2 - 4a(-y)}{4a^2} \geq 0 \Rightarrow \frac{-c^2 - 4ac - 4a^2 + 4ay}{4a^2} \geq 0 \Rightarrow \left(\frac{-c}{2a}\right)^2 \geq 0$$

$$\Rightarrow \Delta = 0 \Rightarrow a, c \text{ غير زوج}$$

في حالتي $a > 0$ و $a < 0$



$$y = an^2 + cn - y \Rightarrow n^2 + 2n - y = 4$$

$$\Rightarrow \frac{-b}{2a} = \frac{-c}{2} = -1 \Rightarrow \boxed{c = 2}$$

$$y = -n^2 - 2n + b$$

$$\Rightarrow -n^2 + 2n - y = 1$$

$$+n^2 - 2n + b = 1$$

$$\Rightarrow b - y = y \Rightarrow b = 2 \Rightarrow ab = 1$$

$$2n^2 - an + b = 0$$

$$\Rightarrow \frac{-b}{2a} = \frac{a}{2}$$

$$2an^2 + an - 4 = 0 \Rightarrow$$

$$\frac{-b}{2a} = -\frac{1}{2}$$

$$2n^2 - an + b$$

$$\Rightarrow \frac{a}{2} = -\frac{1}{2} \Rightarrow a = 1 \Rightarrow 2n^2 + n - 4 \Rightarrow n = \frac{-1 \pm \sqrt{1 + 32}}{4}$$

$$\Rightarrow \frac{ab}{2} = \frac{-4 \times 1}{2} = -\frac{4}{2}$$

$$V' + 2x + 2m = V' + 4x + m \Rightarrow x = -m$$

$$n^2 + 2n - 4m \Rightarrow n = -1 \pm \sqrt{1 + 4m}$$

$$n^2 + 4n + m = 0 \Rightarrow n = -2 \pm \sqrt{4 - m}$$

$$-1 + \sqrt{1 + 4m} = x = -m \Rightarrow m^2 + 1 - 4m = 1 + 4m \Rightarrow m = 0 \Rightarrow m \neq 0$$

$$0 = n^2 + 2n - 4 \Rightarrow n = -2$$

$$n^2 + 4n + 4 = 0 \Rightarrow n = -2 \Rightarrow +2 - (-1) = \boxed{+3}$$