

$$x^2 = t \rightarrow x^2 - Vt - \Delta = 0 \rightarrow \Delta = Fq - F(-\Delta) = 4q \rightarrow t = \frac{V \pm \sqrt{4q}}{2} \Rightarrow t_1 = \frac{V + \sqrt{4q}}{2} \quad -1$$

$$x^2 = \frac{V + \sqrt{4q}}{2} \rightarrow x_{1,2} = \pm \sqrt{\frac{V + \sqrt{4q}}{2}} \rightarrow S = \text{مقدار} \quad P = V + \sqrt{4q}$$

$$VP^2 - 3P + 2 \rightarrow VP^2 \rightarrow VP^2 = \frac{1}{2} \left(\frac{Fq + 1 \pm \sqrt{4q} + 4q^2}{2} \right) = \frac{111 + 1 \pm \sqrt{4q}}{2}$$

Ⓟ ✓

$$y = kx^2 - Fq - 9 \Rightarrow x = \frac{-b}{2a} = \frac{F}{2k} = \frac{V}{k}$$

$$\frac{y}{\omega} = k \left(\frac{V}{k} \right)^2 - F \left(\frac{V}{k} \right) - 9 = \frac{F}{k} - \frac{1}{k} - 9 = -\frac{F}{k} - 9$$

$$y = -Fx - F \xrightarrow{x = \frac{V}{k}} y = -F \left(\frac{V}{k} \right) - F = -\frac{FV}{k} - F$$

$$-\frac{F}{k} - 9 = -\frac{1}{k} - F \rightarrow \frac{F}{k} = 2 \rightarrow k = \frac{F}{2} \quad \text{Ⓟ ✓}$$

$$\frac{y}{\omega} = \frac{-F}{2} - 9 = -2 - 9 = -11 \quad \text{✓}$$

$$-mx^2 + mx + 1 = -m - x$$

$$-mx^2 + (m+1)x + 1 = 0$$

$$\rightarrow \Delta = b^2 - 4ac < 0 \rightarrow (m+1)^2 - 4(-m)(m+1) < 0$$

$$m^2 + 1 + 4m + 4m^2 + 4m = 5m^2 + 8m + 1 = (5m+1)(m+1)$$

$$(5m+1)(m+1) < 0 \rightarrow -1 < m < -\frac{1}{5} \rightarrow \text{مقدار عددی در بازه } (-1, -\frac{1}{5})$$

Ⓟ ✓