

$$\max \rightarrow \frac{-\Delta}{f_a} = V \Rightarrow \frac{-(b^2 + 12)}{-f} = V \Rightarrow b^2 + 12 = 28 \Rightarrow b^2 = 16 \Rightarrow b = \pm 4$$

$$(ii) f(x) = x^2 + 2x^2 + 3 \rightarrow x^2 + 2x^2 = -3 \rightarrow \text{مستحيل}$$

$$b) \frac{(f-x^2)^2}{x^2} - (f-x^2) - 1 \Delta \rightarrow t^2 - 2t - 1 \Delta \Rightarrow \overbrace{(t-\Delta)}^{\Delta} \overbrace{(t+1)}^{-3} = 0$$

$$f - x^2 = -3 \rightarrow x^2 = V \rightarrow x = \pm \sqrt{V}$$

$$f - x^2 = \Delta \rightarrow x^2 = -1 \cdot x$$

$$\alpha = \beta + 2 \quad \alpha + \beta = \frac{-(-14)}{2} = 7 \Rightarrow 2\beta + 2 = 7 \Rightarrow \beta = 1, \alpha = 1 + 2 = 3$$

$$\alpha \cdot \beta = \frac{m}{2} \Rightarrow (1)(3) = \frac{m}{2} \Rightarrow m = 12 \rightarrow \Delta > 0 \checkmark \Rightarrow m = 12$$

$$S = \alpha + \beta = \frac{4}{2} = 2 \quad \left. \begin{array}{l} 3\alpha = 4 \\ \alpha = 2, \beta = 0 \end{array} \right\} \Rightarrow \rho = 2x_0 = \frac{m-1}{2} \Rightarrow m-1 = 0 \Rightarrow m = 1$$

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

$$\left. \begin{array}{l} m = -2 \rightarrow f x^2 + 2x + 1 = 0 \Rightarrow \Delta < 0 \times \\ m = 1 \rightarrow x^2 - 2x - 1 = 0 \Rightarrow \Delta = 12 \checkmark \end{array} \right\} m = 1$$

$$x^2 - mx + 3 = 0 \rightarrow \alpha\beta = 3 \quad \alpha\beta = \frac{\alpha}{\beta} \times \beta = 3 \Rightarrow \beta = \frac{3}{\alpha}, \alpha = \frac{3}{\beta} = \frac{9}{\alpha} \Rightarrow \alpha^2 = 9 \Rightarrow \alpha = \pm 3$$

$$\alpha + \beta = \frac{4}{3} + \frac{9}{\alpha} = m \rightarrow m = \frac{14 + 27}{12} = \frac{41}{12} \rightarrow \Delta > 0 \checkmark \Rightarrow m = \frac{41}{12}$$

$$\alpha, \frac{3}{\alpha} \rightarrow S = f\alpha = 6 \Rightarrow \alpha = 1, \beta = 3 \quad \rho = m = 3 \rightarrow \Delta > 0 \checkmark$$

$$\alpha\beta = 4 \rightarrow \beta = \frac{4}{\alpha}, \alpha + \beta = 5 \Rightarrow \alpha^2 + \frac{4}{\alpha} = \left(\alpha + \frac{4}{\alpha}\right)^2 - 4 \times 2 \left(\alpha + \frac{4}{\alpha}\right)$$

$$\rightarrow 3\alpha^2 - 2\alpha = 1 \Rightarrow \alpha = 1$$

Subject:

Date

$$h(t) = -10t^2 + 20t \rightarrow \text{max} \left| \begin{array}{l} \frac{-20}{-20} = 1 \\ \frac{-10 \cdot 20}{-20} + \frac{20 \cdot 20}{-20} = \frac{100}{-20} \end{array} \right| \rightarrow \text{max } h$$

$$h=0 \Rightarrow 10t(-t+2) \rightarrow t=0 \text{ و } t=2$$

نقطه برخورد

$$(x-1)^2 = 2x-1$$

$$x^2 + 2x = |x+2|$$

