

$$\frac{b^2 + 12}{4} = 7 \rightarrow b^2 + 12 = 28 \rightarrow b^2 = 16 \rightarrow \boxed{b = \pm 4}$$

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معادله جواب حقیقی ندارد. $\Delta < 0 \rightarrow \frac{4 - 12}{-8} < 0$ الف

ب) $(4 - x^2) = t \rightarrow \frac{t^2 - 2t - 15}{(t-5)(t+3)} = 0 \rightarrow$
 $t = -3 \rightarrow -x^2 + 7 = 0 \rightarrow \boxed{x = \pm \sqrt{7}}$
 $t = 5 \rightarrow -x^2 - 1 = 0 \rightarrow x^2 \neq -1$ غرض

$\alpha, \alpha + 2 \rightarrow 2\alpha + 2 = 4 \rightarrow \boxed{\alpha = 1}$ و $\boxed{\alpha + 2 = 3} \rightarrow 1 \times 3 = 3 \rightarrow \frac{m}{4} = 3 \rightarrow \boxed{m = 12}$

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$2\alpha - 4 = \beta$ و $\alpha + \beta = 2 \rightarrow 3\alpha = 4 \rightarrow \boxed{\alpha = \frac{4}{3}}$ $\rightarrow \boxed{\beta = 0} \rightarrow \alpha\beta = 0$
 $m - 1 = 0 \rightarrow \boxed{m = 1}$

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$\alpha\beta = 1 \rightarrow \frac{m^2 - 2}{-m} = 1 \rightarrow m^2 + m - 2 = 0 \rightarrow$
 $m = -2 \rightarrow$ ریشه‌ی مضائقه
 $\boxed{m = 1} \rightarrow$ ریشه‌ی متمایزی دهد.

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$$\frac{\alpha\beta \times \beta}{3} = F \rightarrow \beta = \frac{F}{3} \rightarrow \alpha = \frac{9}{F} \rightarrow \alpha + \beta = \frac{14 + 26}{12} = \frac{40}{12}$$

$$\boxed{m = \frac{40}{12}}$$

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$$3\alpha, \alpha \rightarrow 3\alpha^2 = m, F\alpha = F \rightarrow \boxed{\alpha = 1} \rightarrow 3\alpha^2 = 3 \rightarrow \boxed{m = 3}$$

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$$\alpha^3 + \frac{1}{\alpha^3} = \left(\alpha + \frac{1}{\alpha}\right) \left(\alpha^2 + \frac{1}{\alpha^2} - 1\right)$$

$$\alpha^3 + F\alpha + F = F9\alpha^2 \rightarrow \alpha^3 + F = F9\alpha^2 \rightarrow \alpha^3 + \frac{F}{\alpha^2} = F9$$

$$\alpha^3 + \frac{1}{\alpha^3} = \boxed{30.1}$$

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$$h(t) = -10t^2 + 50t \rightarrow \text{ارتفاع ماكسيم} \rightarrow \frac{-\Delta}{F_a} \rightarrow \frac{(50)^2}{F_0} = \frac{1250}{2}$$

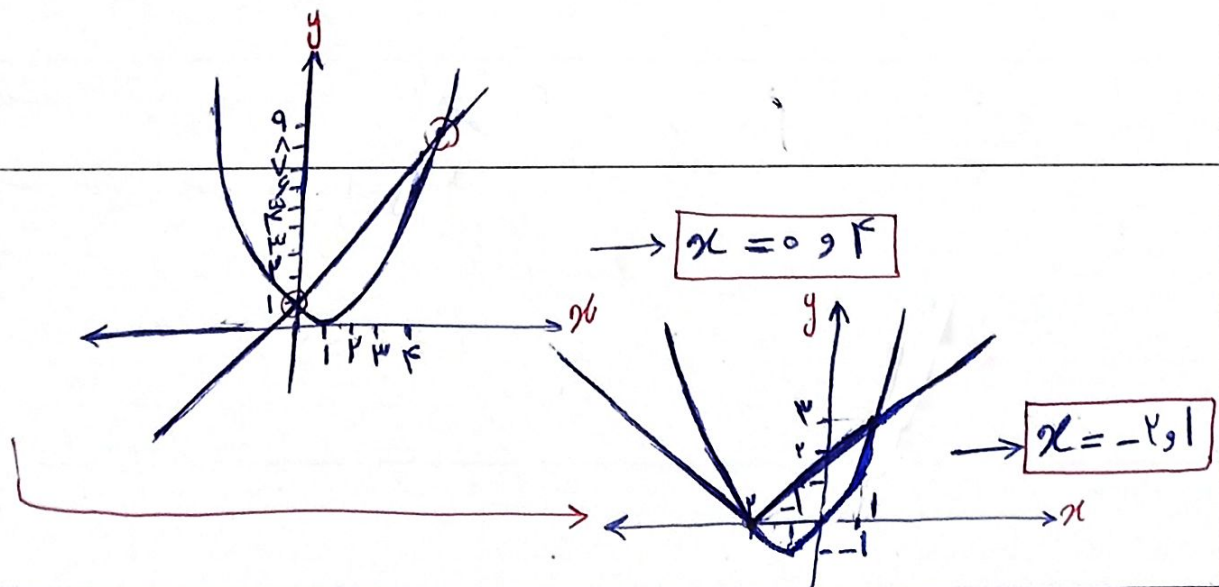
$$-10t(t - 5) = 0 \rightarrow \boxed{t = 5}$$

$$\boxed{42.5}$$

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الف)

ب)



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