

$$\frac{-\Delta}{\epsilon a} = v \Rightarrow \frac{-b^2 - 12}{-4} = v \Rightarrow -b^2 - 12 = -28 \Rightarrow b^2 = 16 \Rightarrow b = \pm 4$$

الف) $x^2 = t \Rightarrow t^2 + 2t + 3 \rightarrow$ ريش ندارد

ب) $4 - x^2 = t \Rightarrow t^2 - 2t - 10 = 0 \Rightarrow t = \frac{2 \pm \sqrt{4 + 40}}{2} = 1 \pm \sqrt{11}$
 $\Delta \Rightarrow 4 - x^2 = 0 \Rightarrow x^2 = 4 \Rightarrow x = \pm 2$
 $\Rightarrow x = \pm \sqrt{v}$

$$x + x + 2 = \frac{-b}{a} = \frac{14}{4} = \frac{7}{2} \Rightarrow 2x + 2 = \frac{7}{2} \Rightarrow 2x = \frac{3}{2} \Rightarrow x = \frac{3}{4}$$

$$\Rightarrow \frac{c}{a} = \frac{m}{4} = \frac{3}{2} \Rightarrow m = 6$$

$$\frac{3}{4}(\alpha + \beta) + \frac{1}{4}(\alpha - \beta) = 4$$

$$\Rightarrow \frac{3}{4} \times 2 + \frac{1}{4}(\alpha - \beta) = 4 \Rightarrow \alpha - \beta = 2 \Rightarrow \frac{\sqrt{\Delta}}{|a|} = 2$$

$$\Rightarrow \frac{\sqrt{36 - 12(m-1)}}{4} = 2 \Rightarrow 36 - 12(m-1) = 64 \Rightarrow m = 1$$

$$\frac{c}{a} = 1 \Rightarrow \frac{m^2 - 5}{-m} = 1 \Rightarrow m^2 + m - 5 = 0 \Rightarrow m = \frac{-1 \pm \sqrt{1 + 20}}{2} = \frac{-1 \pm \sqrt{21}}{2}$$

$$\alpha\beta = \frac{c}{a} = 3 \Rightarrow \alpha\beta^2 = 3\beta = 4 \Rightarrow \alpha = \frac{4}{\beta}$$

$$\alpha + \beta = \frac{4}{\beta} + \beta = \frac{4 + \beta^2}{\beta} = \frac{14 + 2\sqrt{11}}{12} = \frac{7 + \sqrt{11}}{6} \Rightarrow \frac{b}{a} = \frac{m}{12} = \frac{7 + \sqrt{11}}{12}$$

$$\alpha + 3\alpha = \frac{-b}{a} = 4 \Rightarrow \alpha = 1$$

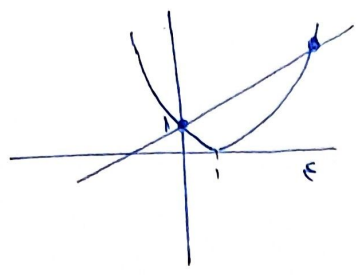
$$m = \frac{c}{a} = \alpha \times 3\alpha = 1 \times 3 = 3$$

$$\alpha\beta = 2 \Rightarrow \beta = \frac{2}{\alpha} \Rightarrow \beta^2 = \frac{4}{\alpha^2}$$

$$\Rightarrow \alpha^2 + \frac{4}{\alpha^2} = \alpha^2 + \beta^2 = (\alpha + \beta)^2 - 2(\alpha\beta)(\alpha + \beta) = v^2 - 2 \times 2 \times v = (3, 1)$$

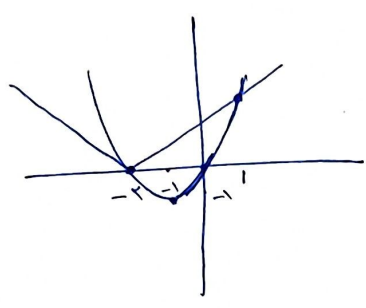
Max $\frac{-\Delta}{\epsilon a} = \frac{-40 \times 40}{-40} = 40, 0$ $-10t^2 + 40t = 0 \rightarrow t = 0$

الف)



$$x_1 \leq x_2$$

ب)



$$x_1 \leq x_2$$