

$$\frac{b^2 - 4ac}{4a} = 7 \quad \frac{b^2 - 4ac}{-4} = 7 \rightarrow \frac{b^2 - 4ac}{4} = 7 \rightarrow b^2 - 4(-1)(3) = 28$$

$$b^2 + 12 = 28 \rightarrow b^2 = 16 \rightarrow b = \pm 4$$

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الف) $m^2 = 4 \rightarrow t^2 + 2t + 3 \Delta \rightarrow b^2 - 4ac \rightarrow \frac{4 - 4(1)(3)}{(2)^2} = -1 \times$

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ب) $t^2 - m^2 = 4 \rightarrow t^2 - 2t - 10 \Delta \rightarrow (t^2 - 2t + 1) - 11 = 0$

$\frac{-b \pm \sqrt{b^2 - 4ac}}{2a} \rightarrow \frac{2 \pm 11}{2} \begin{cases} t = 5 \rightarrow t^2 - m^2 = 0 \Rightarrow -1 = m^2 \times \\ t = -3 \rightarrow t^2 - m^2 = -8 \Rightarrow 7 = m^2 \Rightarrow m = \pm \sqrt{7} \end{cases}$

$\beta = \alpha + 2 \quad \beta + \alpha \Rightarrow \alpha + 2 + \alpha = 2\alpha + 2 = 4 \rightarrow 2\alpha = 2 \rightarrow \alpha = 1$

$\beta = \alpha + 2 \rightarrow 1 + 2 = 3 \quad \beta \times \alpha = 3 \times 1 = 3 \quad \frac{m}{3} = 3 \rightarrow m = 9$

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$\frac{c}{a} = \alpha \beta \quad \frac{-b}{a} = \alpha + \beta$

$2\alpha - \beta = 2$
 $\alpha + \beta = 2 \rightarrow 2 + \beta = 2 \quad \beta = 0 \quad 2 \times 0 = 0 \quad \frac{c}{\alpha} = \alpha \times \beta$
 $2\alpha = 2 \rightarrow \alpha = 1$

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$\frac{m-1}{2} = 0 \rightarrow m-1 = 0 \rightarrow m = 1 \checkmark$

$\beta = \frac{1}{\alpha} \quad \beta \times \alpha \Rightarrow \frac{1}{\alpha} \times \alpha = 1 = \frac{c}{a} \Rightarrow \frac{m^2 - 2}{-m} = 1 \Rightarrow m^2 - 2 = -m$

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$m^2 + m - 2 = 0 \quad \Delta \rightarrow 1 - 4(1)(-2) = 9 \quad \frac{-1 \pm 3}{2} \begin{cases} +1 \checkmark \\ -2 \times \end{cases}$

$1 \rightarrow 1 - 4(-1)(-1) = 0 \checkmark \quad -2 \rightarrow 1 - 4(2)(2) = 0 \times$

یک ریشه دارد و ریشه های متمایز ندارد

$$\alpha \times \beta = \frac{c}{a} = r \quad \frac{d\alpha^r}{d\beta} = \beta = \frac{r}{r} \quad d\alpha \frac{r}{r} = r \rightarrow \alpha = \frac{r}{r} \rightarrow r \times \frac{r}{r} = r$$

$$\frac{q}{r} + \frac{r}{r} = \frac{rV+19}{1r} = \frac{r}{1r} = r \Rightarrow \frac{r}{1r} = r \Rightarrow \frac{r}{1r} = r$$

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$$\beta = r\alpha \quad \beta + \alpha \rightarrow r\alpha + \alpha = r\alpha = r \rightarrow \alpha = 1 \quad \beta = r\alpha \rightarrow r \times 1 = r$$

$$\beta \times \alpha = r \times 1 = r = \frac{m}{1} \rightarrow m = r$$

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$$\alpha \times \beta = \frac{c}{a} = r \rightarrow \beta = \frac{r}{\alpha} \quad \alpha^r + \frac{1}{\alpha^r} = (\alpha)^r + \left(\frac{r}{\alpha}\right)^r \rightarrow \alpha^r + \beta^r$$

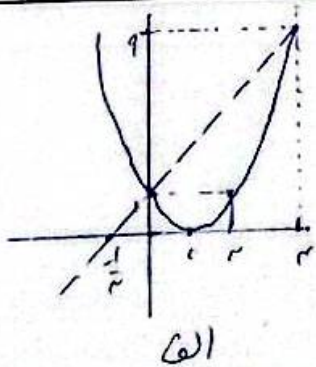
$$\alpha^r + \beta^r = 5^r - r\theta \quad \gamma^r - r(\gamma)(\gamma) = r\alpha^r - r\gamma = r\alpha^r$$

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$$\frac{-b}{2a} \rightarrow \frac{-0_1}{-r_0} = \frac{0}{r} \rightarrow -1_0 \left(\frac{r_0}{r} \right) + 0_1 \left(\frac{0}{r} \right) \rightarrow -\frac{1r_0}{r} + \frac{r_0}{r} = \frac{1r_0}{r} \rightarrow r_0 = h_{max}$$

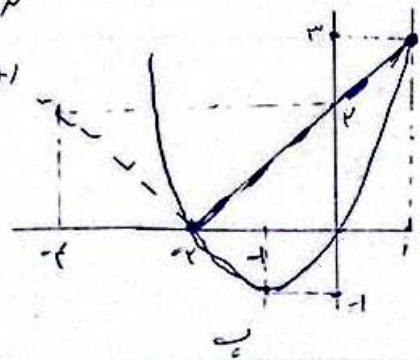
$$-1_0 t^r + 0_1 t \rightarrow t(0_1 - 1_0 t) \quad \begin{cases} t=0 & \text{نقطه شروع} \\ t=0 & \text{نقطه پایان} \end{cases}$$

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$$-r(n-1)^r$$

$$-r(n+1)$$



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