

(19)

آزمونهای زیر هم معتبر است

$$y_s = -\frac{\Delta}{\epsilon a} = V \rightarrow \frac{b^r + 1r}{-c} = \frac{b^r + 1r}{c} = V \rightarrow b^r + 1r = r\Delta \rightarrow b^r + 1r = 14 \rightarrow b = \pm 5 \quad (5)$$

$$f(x) = x^r + rx^r + r \quad x^r = n \rightarrow n^r + rn + r = y \rightarrow \Delta = b^r - \epsilon ac = 5 - \epsilon(r) = -1 < 0 \quad \text{الف) بیشینه دارد}$$

$$f(x) = (\epsilon - x^r)^r - r(\epsilon - x^r) - 1 \quad (\epsilon - x^r) = n \rightarrow n^r - rn - 1 = y \rightarrow y = (n-1)(n+2) \quad (5)$$

$$n = \omega \rightarrow \epsilon - x^r = \omega \rightarrow x^r = -1 \quad \text{غیر}$$

$$n = -r \rightarrow \epsilon - x^r = -r \rightarrow x^r = V \rightarrow x = \pm \sqrt{V}$$

$$\alpha = \beta + r \quad S = -\frac{b}{a} = \frac{14}{c} = 5 = \alpha + \beta \rightarrow r\beta + r = 5 \rightarrow r\beta = r \rightarrow \boxed{\beta = 1} \rightarrow \boxed{\alpha = 3} \quad (1, 0)$$

$$P = \frac{c}{a} = \frac{m}{c} = \alpha \cdot \beta \rightarrow \frac{m}{c} = 3 \rightarrow \boxed{m = 12} \quad r_2^r - 14x + 1r = \Delta > 0 \checkmark$$

$$S = -\frac{b}{a} = \frac{9}{r} = 3 \rightarrow \alpha + \beta = 3 \rightarrow \beta = 3 - \alpha \rightarrow r\alpha = (3 - \alpha) = 5 \rightarrow r\alpha = 9 \rightarrow \alpha = 3, \beta = 0 = 5$$

$$P = \frac{c}{a} = \frac{m-1}{r} = 0 \rightarrow m-1 = 0 \rightarrow \boxed{m = 1} \quad r_2^r - 4x = \Delta > 0 \checkmark \quad (1, 0)$$

$$P = 1 \rightarrow P = \frac{c}{a} = \frac{m^r - r}{-m} = 1 \rightarrow m^r - r = -m \rightarrow m^r + m - r = 0 \rightarrow m = 1 \quad m = 2 \quad (5)$$

$$m = 1 \rightarrow -x^r + \epsilon x + 1 = 0 \rightarrow \Delta = 14 - \epsilon = 12 > 0 \checkmark \rightarrow m = 1 \text{ قبول}$$

$$m = 2 \rightarrow +2x^r + \epsilon x + r = 0 \rightarrow \Delta = 14 - 19 = 0 \quad \times$$

$$P = \frac{c}{a} = \frac{r}{1} = r \rightarrow \alpha \cdot \beta = r \quad \alpha\beta^r = \beta(\alpha\beta) = 5 \rightarrow r\beta = 5 \rightarrow \beta = \frac{5}{r} \quad \alpha = \frac{9}{c} \quad (1, 0)$$

$$S = -\frac{b}{a} = \frac{m}{1} = m \rightarrow m = \alpha + \beta = \frac{9}{c} + \frac{5}{r} = \frac{2r + 14}{1r} = \frac{5r}{1r} \quad m = \frac{5r}{1r} \quad x^r - \frac{r^2 x}{1r} + r = \Delta > 0 \checkmark$$

$$\alpha = r\beta \quad S = -\frac{b}{a} = 5 = \alpha + \beta \rightarrow r\beta + \beta = 5 \rightarrow \beta = 1 \quad \alpha = r$$

$$P = \frac{c}{a} = m = \alpha \cdot \beta \rightarrow \boxed{r = m} \quad x^r - 5x + r = \Delta > 0 \checkmark \quad (1, 0)$$

$$P = \frac{c}{a} = r \rightarrow \alpha\beta = r \rightarrow \alpha \cdot \frac{r}{\beta} \rightarrow \alpha^r + \frac{1}{\frac{1}{\beta^r}} = \alpha^r + \beta^r \quad S=V \quad P=r \quad 1$$

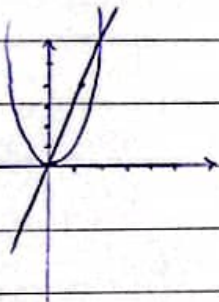
$$\Rightarrow \alpha^r + \beta^r = (\alpha + \beta)^r - r\alpha\beta(\alpha + \beta) \rightarrow (V)^r - r(r)(V) = 3^4 - 4r = 3 \cdot 1$$

$$h(t) = -10t^2 + \omega \cdot t$$

$$\text{ارتفاع ماکزیمم: } y_s = -\frac{\Delta}{2a} = -\frac{r\omega \dots + 0}{-20} = 4r, \omega$$

$$\text{زمان رسیدن به زمین: } -10t^2 + \omega \cdot t = 0 \rightarrow t^2 - \omega t = 0 \rightarrow t(t - \omega) = 0 \rightarrow \underbrace{t=0}_{\text{نقطه پرتاب}} \times \boxed{t=\omega} \checkmark$$

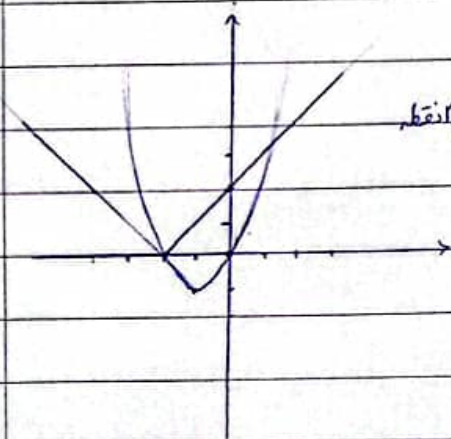
$$(n-1)^2 = 2n+1 \rightarrow n^2 - 2n+1 = 2n+1 \rightarrow n^2 = 4n \quad \text{الف) } y = 4n, \quad y = n^2 \quad \text{رسم کنید}$$



در شیب دارد چون در نقطه
مقاطع برخورد.

$$n^2 - 4n = 0 \rightarrow n(n-4) = 0 \quad n=0 \quad n=4$$

$$n^2 + 2n = |n+2|$$



در شیب دارد چون در نقطه
مقاطع برخورد.

$$n^2 + 2n = n+2 \rightarrow n^2 + n - 2 = 0 \rightarrow n = -1, n = 2$$

$$n^2 + 2n = -(n+2) \rightarrow n^2 + 3n + 2 = 0 \rightarrow \underbrace{n = -1, n = -2}_{\text{غیر قابل قبول}}$$

$$\Rightarrow n = -1 \quad n = 2$$