

نام و نام خانوادگی: ... پسر/دختر ... پاسخنانه تشریحی تکلیف شماره ... کلاس ... از دفتر پسر/دختر ...

$$\text{max } y_s = -\frac{\Delta}{f_x} = V \Rightarrow \frac{-(b^2 - f_x - 1 \times 1)}{f_x - 1} = V \Rightarrow -b^2 - 1^2 = -21$$

$$\Rightarrow b^2 = 15 \Rightarrow b = \pm \sqrt{15}$$

(۲)

۱

$$a^2 = t \Rightarrow t^2 + 2t + 3 = 0 \Rightarrow \Delta = 4 - 12 < 0 \Rightarrow \text{ریشه حقیقی ندارد}$$

(۲)

۲

$$f - a^2 = t \Rightarrow t^2 - 2t - 15 = 0 \Rightarrow (t - 5)(t + 3) = 0 \Rightarrow t = 5 \Rightarrow a^2 = 5 \Rightarrow a = \pm \sqrt{5}$$

$$f - a^2 = -5 \Rightarrow a^2 = 7 \Rightarrow a = \pm \sqrt{7}$$

$$\Rightarrow S = \alpha + \alpha + 2 = 2\alpha + 2 \Rightarrow \frac{b}{\alpha} = 2 \Rightarrow \frac{-(-15)}{5} = 3$$

(۲)

۳

$$f = 2\alpha + 2 \Rightarrow \alpha = 1 \Rightarrow \alpha = 1, \beta = 3$$

$$f_x(1) - 15(1) + m = 0 \Rightarrow m = 12$$

(۲)

۴

$$S = \frac{b}{\alpha} \Rightarrow \frac{-(-5)}{3} = 2 \Rightarrow \alpha + \beta = 2 \Rightarrow \alpha = 2 - \beta \Rightarrow 2(2 - \beta) - \beta = 5$$

$$\Rightarrow 4 - 2\beta - \beta = 5 \Rightarrow \beta = 0 \Rightarrow \alpha = 2 \Rightarrow p = \frac{m-1}{3} \Rightarrow 2 \times 0 = 0$$

$$\Rightarrow m - 1 = 0 \Rightarrow m = 1$$

(۲)

۵

$$\Rightarrow p = \frac{c}{\alpha} \Rightarrow \frac{m^2 - 2}{-m} = \frac{1}{\alpha} \times \alpha \Rightarrow \frac{m^2 - 2}{-m} = 1 \Rightarrow m^2 + m - 2 = 0$$

$$\Rightarrow (m + 2)(m - 1) = 0 \Rightarrow m = -2, 1 \Rightarrow m = -2 \Rightarrow \Delta = 0 \times \text{یک جواب دارد}$$

$$\Rightarrow m = 1 \Rightarrow \Delta > 0 \Rightarrow \text{دو جواب دارد}$$

$$\alpha\beta^2 = 9 \Rightarrow \alpha\beta \times \beta = 9 \quad p = \alpha\beta = \frac{c}{a} = \frac{1}{1} = 1$$

$$\Rightarrow 1 \times \beta = 9 \Rightarrow \beta = \frac{9}{1} \Rightarrow \alpha\beta = 1 \Rightarrow \frac{9}{1} \times \alpha = 1 \Rightarrow \alpha = \frac{1}{9}$$

$$\Rightarrow S = -\frac{(-m)}{1} = m \Rightarrow \alpha + \beta = m \Rightarrow \frac{1}{9} + \frac{9}{1} = \frac{82}{9} = m$$

(2)
6

$$\Rightarrow S = -\frac{b}{a} = -\frac{(-9)}{1} = 9 \Rightarrow 2\alpha + \alpha = 9 \Rightarrow \alpha = 1$$

$$\Rightarrow \text{بیشترین مقدار } \Rightarrow (1)^2 - 9(1) + m = 0 \Rightarrow m = 9$$

(2)
7

$$p = \frac{c}{a} = \frac{1}{1} = 1 \Rightarrow \alpha\beta = 1 \Rightarrow \alpha = \frac{1}{\beta} \Rightarrow \alpha^2 = \frac{1}{\beta^2}$$

$$\Rightarrow \alpha^2 + \frac{1}{\beta^2} = 5 \Rightarrow \alpha^2 + \beta^2 = 5 \Rightarrow S^2 - 2pS = 5 \Rightarrow 1^2 - 2(1 \times 1) = 5 \Rightarrow 1 - 2 = 5 \Rightarrow -1 = 5$$

(2)
8

$$\max_{t \in \mathbb{R}} f(t) = y_h \Rightarrow -\frac{D}{4a} = -\frac{(b^2 - 4ac)}{4a} \Rightarrow -\frac{(16 - 4 \times 1 \times 0)}{4 \times 1} = \frac{16}{4} = 4$$

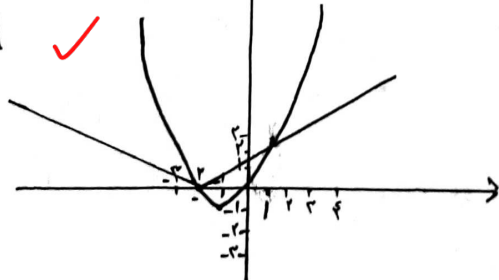
$$h = 0 \Rightarrow -10z + 20z = 0 \Rightarrow -10z(z - 2) = 0$$

$$z = 0 \quad z = 2 \Rightarrow z = 2$$

(2)
9

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

$$n = -2$$

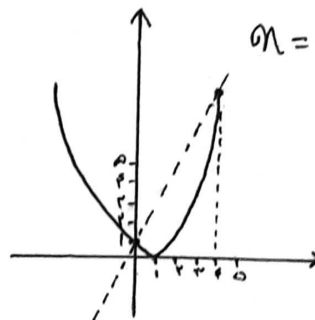


(-)

$$n^2 - 2n + 1 = |n+1|$$

(-)

$$n = 0$$



(2)

10