

نام و نام خانوادگی کلاس شماره تکلیف شماره پاسخنامه تشریحی

$$d_{\max} = -\frac{\Delta}{t_a} = -\frac{b^r + 15}{-t} = \sqrt{b^r + 15} = r_n \quad b^r = 14 \quad \underline{b = \pm t}$$

⑦

1

✓ نه جواب ندارد. $\Rightarrow$ ریشه t تعریف نمی شود $\Rightarrow \Delta < 0 \quad t^2 - 2t + 2 = 0 \quad t' = t \quad x' = t$ انت

$$t - x^r = -r \quad -x^r = -v \quad x = \pm \sqrt{v} \quad \checkmark$$

(2)

2

$$\beta = \alpha + 5 \quad S = 5\alpha + 5 = -\frac{14}{t} = t \quad \alpha = 1 \quad \beta = 6 \quad x=1 \rightarrow t - 14 + m = 0 \quad m = 13$$

⑦

3

$$\beta = r\alpha - t \quad S = r\alpha - t = -\frac{-4}{r} = r \quad \alpha = r \quad \beta = 0 \Rightarrow \underline{m=1}$$

②

۲

$$\beta = \frac{1}{\alpha} \quad \rho = 1 = \frac{m^r - r}{-m} \quad m^r - r = -m \quad m^r + m - r = (m+r)/(m-1) = 0 \quad m = -r \quad m = 1$$

$$\Delta > 0 \quad 14 + t(m(m^r - r)) > 0 \quad t + m^r - r m = m^r - r m + t > 0 \rightarrow m = -r \quad -14 + t + t$$

$$m=1 \quad 1 - r + t > 0 \Rightarrow r > 0 \quad \checkmark \Rightarrow \underline{m=1} \quad \checkmark$$

②

5

$$P = 4 = \alpha\beta \quad \alpha\beta \cdot \beta = 4 \quad \beta = \frac{4}{\alpha} \quad \checkmark \quad \frac{14}{\alpha} \alpha = 4 \quad \alpha = \frac{4}{\alpha} \quad \checkmark$$

سوال مقدار m را مشخصه!

$$S = \frac{43}{12} = m \quad \checkmark \quad \text{چند می‌کنیم ده باشد!}$$

1

6

$$\beta = 4\alpha \quad \alpha + \beta = 4\alpha = 4 \Rightarrow \alpha = 1 \quad \beta = 4 \quad \alpha\beta = P = 4 = \frac{m}{1} \Rightarrow m = 4 \quad \checkmark$$

2

7

$$\alpha\beta = P = 4 \quad \beta = \frac{4}{\alpha} \Rightarrow \alpha^2 + \frac{4}{\alpha^2} = \alpha^2 + \beta^2 = (\alpha + \beta)(\alpha^2 + \beta^2 - \alpha\beta) = S(S - P)$$

$$S = 4 \Rightarrow 4(4 - 4) = 0 \quad \checkmark \quad \boxed{3.1}$$

1.75

8

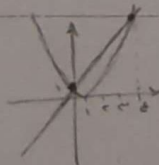
$$\boxed{\alpha^2 + \beta^2 = S^2 - 2SP}$$

$$h_{max} = -\frac{\Delta}{2a} = -\frac{-400}{-20} = -20 \quad \checkmark \quad h = -10t(t - 20) \quad t = 20 \quad \checkmark$$

2

9

$$\text{الف) } (x-1)^2 = 2x + 1$$

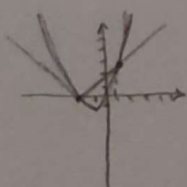


$$x = 0 \quad x = 2 \quad \checkmark$$

$$x^2 - 2x + 1 = 2x + 1 \quad x(x-2) = 0 \quad x = 0 \quad x = 2$$

2

$$\text{ب) } x^2 + 2x = |x + 2|$$



$$x = -2 \quad x = 1 \quad \checkmark$$

$$x \geq -2 \quad x^2 + 2x = x + 2 \quad x^2 + x - 2 = 0 \quad (x+2)(x-1) = 0 \quad x = -2 \quad x = 1$$

$$x < -2 \quad x^2 + 2x = -(x + 2) \quad x^2 + 3x + 2 = 0 \quad (x+2)(x+1) = 0 \quad x = -2 \quad x = -1$$

مجموع جوابها 2.1