

۱۸/۱۵

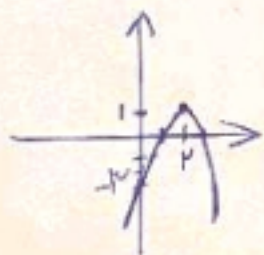
نام و نام خانوادگی: آثریسا آقاسالار ... پاسخنامه تشریحی تکلیف شماره ۱ ... کلاس: دهم دختر A

الف) $y = x^2 + 6x + 5 = 9 - 11 + 5 = -4$
 $\frac{-b}{2a} = \frac{-6}{2} = -3 = x$
 $\alpha > 0 \rightarrow$ منبوع
 $\begin{bmatrix} -3 \\ -4 \end{bmatrix}$



ب)

الف) $y = -x^2 + 4x - 3 = -1 + 4 - 3 = 0$
 $\frac{-b}{2a} = \frac{-4}{2(-1)} = 2 = x$
 $\alpha < 0$
 $-x^2 + 4x - 3 = 0$
 $a + b + c = 0$
 $x = \frac{c}{a} = \frac{-3}{-1} = 3$
 $x = 1 \Rightarrow \begin{bmatrix} 1 \\ 0 \end{bmatrix}$ و $\begin{bmatrix} 3 \\ 0 \end{bmatrix}$



الف) $2x^2 - 3x + \alpha = 0$ $\Delta > 0$
 $\Delta = b^2 - 4ac = 9 + (-4)(\alpha)(-1) = 9 + 4\alpha$
 $9 + (-4)(\alpha) = 0 \rightarrow \alpha = \frac{9}{4}$
 $C = 2 \rightarrow \alpha = 2$

$2 - 3 + \alpha = 0 \rightarrow \alpha = 1$

ب) $9 + (-4)(\alpha) = 0 \rightarrow \Delta = 0$
 $C = \frac{-9}{-4} = \frac{9}{4} = 1, 1, 2, \alpha = \frac{9}{4}$

الف) $x^2 - 2x - 1 = 0$ $x^2 - 2x = 1$ $x^2 - 2x + 1 = 1 + 1$
 $(x-1)^2 = 2 \rightarrow x-1 = \pm\sqrt{2} \rightarrow x = 1 \pm \sqrt{2}$

ب) $x^2 - x - 1 = 0$ $x^2 - x = 1$ $x^2 - x + \frac{1}{4} = 1 + \frac{1}{4}$
 $(x - \frac{1}{2})^2 = \frac{5}{4} \rightarrow x - \frac{1}{2} = \pm\sqrt{\frac{5}{4}} \rightarrow x = \frac{1}{2} \pm \sqrt{\frac{5}{4}}$

الف) $x^2 - 2x - 1 = 0$ $\Delta = b^2 - 4ac = 4 + (-4)(1)(-1) = 8$ $\Delta > 0$
 $x = \frac{-b \pm \sqrt{\Delta}}{2a} \Rightarrow \frac{2 \pm \sqrt{8}}{2} = 1 \pm \sqrt{2}$

ب) $x^2 + x - 4 = 0$ $\Delta = 1 + (-4)(1)(-4) = 17$ $\Delta > 0$
 $x = \frac{-1 \pm \sqrt{17}}{2}$

$$x^2 - 11x + 11 = 0 \rightarrow (x - V)(x - F) = 0$$

$$\begin{matrix} -V & -F \\ + & + \end{matrix}$$

$$x = V \quad x = F$$

(الف)

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$$x^2 + 13x - 11 = 0 \rightarrow (x + V)(x - F) = 0$$

$$\begin{matrix} +V & -F \\ + & - \end{matrix}$$

$$x = -V \quad x = F$$

(ب)

$$\Delta x^2 - 12x + V = 0 \rightarrow x^2 - 12x + 13 = 0 \rightarrow (x - V)(x - d) = 0$$

$$\begin{matrix} -V & -d \\ + & + \end{matrix}$$

$$x = V \quad x = d$$

(الف)

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$$x = \frac{V}{d} \quad x = \frac{d}{V} = 1 \leftarrow \text{ریشه اصلی}$$

$$13x^2 - 10x + V = 0 \quad x^2 - 10x + 11 = 0 \rightarrow (x - 13)(x - V) = 0 \rightarrow x = V$$

$$\begin{matrix} -13 & -V \\ + & + \end{matrix} \quad x = \frac{13}{V} = 1 \quad x = \frac{V}{13} \leftarrow \text{ریشه اصلی}$$

(ب)

$$2x^2 - dx + 1 = 0 \quad \Delta = b^2 - 4ac \quad (ج) \quad 2x^2 - dx + 13 = 0$$

$$\Delta = 2d - 4(2)(1) = 1V \quad x = \frac{-b \pm \sqrt{\Delta}}{2a}$$

$$x = \frac{d \pm \sqrt{1V}}{4}$$

$$2x^2 + Vx + 9 = 0$$

$$\Delta = 49 - 4(2)(9) = -9d$$

$\Delta < 0$ ریشه حقیقی ندارد

$$2x^2 - dx + 13 = 0$$

$$2 - d + 13 = 0 \quad \begin{cases} x = 1 \\ x = \frac{C}{A} = \frac{13}{2} \end{cases}$$

(الف)

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$$2x^2 + dx + 13 = 0$$

$$2 + 13 = d \quad \begin{cases} x = -1 \\ x = \frac{C}{A} = \frac{-13}{2} \end{cases}$$

(ب)

$$S^2 - 2P = 9 \rightarrow \frac{(-F)}{+F} = \frac{13}{6} \quad (الف)$$

$$x^2 - 13x - 1 = 0 \quad \text{جمع} = S = \frac{-b}{a}$$

$$\text{ضرب} = P = \frac{c}{a}$$

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$$S^2 - 13SP = 2V - 13 \left(\frac{13}{6} \right) \left(\frac{-1}{6} \right) = (ب)$$

$$= 2V + 11 = \frac{13d}{6}$$

$$S = \frac{13}{1} = 13$$

$$P = \frac{-1}{1} = -1$$

$$\begin{pmatrix} V \\ d \end{pmatrix} = \begin{pmatrix} V \\ 13 \end{pmatrix} = \frac{V \times 13}{13 \times 1} = 11 \quad \begin{pmatrix} 9 \\ 13 \end{pmatrix} = \frac{9 \times 13}{13 \times 1} = 9$$

(الف)

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$$\begin{pmatrix} 9 \\ 13 \end{pmatrix} = \frac{9 \times 13 \times V}{13 \times 13 \times 1} = 11$$

$$\begin{pmatrix} 1 \\ 13 \end{pmatrix} = \frac{1 \times 13 \times V}{13 \times 1} = 11$$

(ب)

$$11 - 11 = \frac{13d}{6}$$