

به نام خدا

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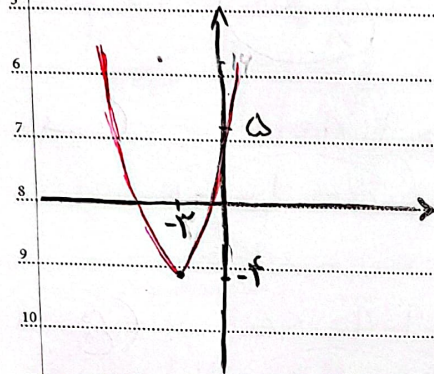
Date :

Subject : اینجانب می‌دهم 3

تالیف شماره 1

$$\text{ext} \left| \begin{array}{l} -b \\ 2a \end{array} \right| \rightarrow \text{Min} \left| \begin{array}{l} -3 \\ -4 \end{array} \right|$$

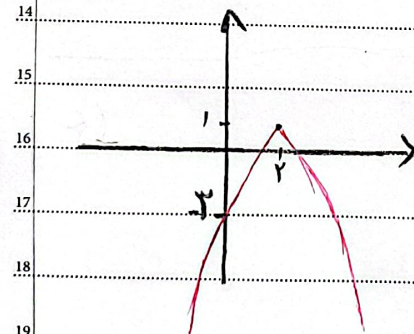
(الف)



(ب)

$$\text{ext} \left| \begin{array}{l} -b \\ 2a \end{array} \right| \rightarrow \text{Max} \left| \begin{array}{l} 2 \\ 1 \end{array} \right|$$

(الف)



(ب)

PARAMOUNT

$$2x^2 - 2x + a = 0$$

(3) الف

$$\Delta > 0 \quad b^2 - 4ac > 0 \Rightarrow 9 - 1a > 0$$

$$\Rightarrow 9 > 1a$$

$$\Rightarrow \frac{9}{1} > a$$

$$\Delta = 0 \quad b^2 - 4ac = 0 \Rightarrow 9 - 1a = 0$$

$$\Rightarrow a = \frac{9}{1}$$

$$\Delta < 0 \quad b^2 - 4ac < 0 \Rightarrow 9 - 1a < 0$$

$$a > \frac{9}{1}$$

$$a < \frac{9}{1}$$

(5)

$$x^2 - 2x - 1 = 0$$

$$\rightarrow x^2 - 2x = 1 \xrightarrow{+1} x^2 - 2x + 1 = 1 \rightarrow (x-1)^2 = 1$$

$$\rightarrow |x-1| = 1 \quad \begin{cases} x-1 = 1 \rightarrow x = 2 \\ x-1 = -1 \rightarrow x = 0 \end{cases}$$

$$\begin{cases} x = 2 \\ x = 0 \end{cases}$$

$$1 \quad \text{أ) } x^2 + x - 4 = 0$$

$$2 \quad \rightarrow x^2 + x = 4 \quad + \frac{1}{4} \rightarrow x^2 + x + \frac{1}{4} = 4 + \frac{1}{4}$$

$$3 \quad \rightarrow \left(x + \frac{1}{4}\right)^2 = \frac{17}{4} \rightarrow \left|x + \frac{1}{4}\right| = \pm \frac{\sqrt{17}}{2}$$

$$4 \quad \begin{cases} x_1 = -\frac{1}{4} + \frac{\sqrt{17}}{2} \\ x_2 = -\frac{1}{4} - \frac{\sqrt{17}}{2} \end{cases}$$

$$8 \quad \text{ب) } x^2 - 2x - 1 = 0$$

$$9 \quad x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} \rightarrow x = \frac{2 \pm \sqrt{4 + 4}}{2}$$

$$10 \quad \rightarrow \begin{cases} x_1 = \frac{2 + \sqrt{8}}{2} = 1 + \sqrt{2} \\ x_2 = \frac{2 - \sqrt{8}}{2} = 1 - \sqrt{2} \end{cases}$$

$$14 \quad \text{ج) } x^2 + x - 4 = 0$$

$$15 \quad x = \frac{-1 \pm \sqrt{1 + 16}}{2} \rightarrow \begin{cases} x = \frac{-1 + \sqrt{17}}{2} \\ x = \frac{-1 - \sqrt{17}}{2} \end{cases}$$

$$18 \quad \text{د) } x^2 - 11x + 21 = 0$$

$$19 \quad (x - 7)(x - 3) = 0 \rightarrow \begin{cases} x - 7 = 0 \rightarrow x = 7 \\ x - 3 = 0 \rightarrow x = 3 \end{cases}$$

$$\rightarrow x^2 + 3x - 21 = 0$$

$$(x+7)(x-3) = 0 \rightarrow \begin{cases} x = -7 \\ x = 3 \end{cases}$$

$$\text{الف) } \Delta x^2 - 12x + V = 0$$

(✓)

$$x^2 - 12x + 3\Delta = 0 \rightarrow (x-7)(x-\Delta) = 0$$

$$\rightarrow \begin{cases} x = \frac{V}{\Delta} \\ x = 1 \end{cases}$$

$$\rightarrow x^2 - 1 \cdot x + V = 0$$

$$x^2 - 1 \cdot x + 11 = 0 \rightarrow (x-7)(x-3) = 0$$

$$\rightarrow \begin{cases} x = \frac{V}{3} \\ x = \frac{3}{3} = 1 \end{cases}$$

$$\text{الف) } \Delta x^2 - 5x + 2 = 0$$

(نسی)

(1)

$$x^2 - 5x + 6 = 0 \rightarrow (x-2)(x-3) = 0$$

$$\begin{cases} x = \frac{2}{1} \\ x = 1 \end{cases}$$

$$1 \quad \text{ب) } 2x^2 + 5x + 2 = 0 \quad (\text{نوی})$$

$$2 \quad x^2 + 5x + 2 = 0 \Rightarrow (x+1)(x+2)$$

$$3 \quad \rightarrow \begin{cases} x = -2 \\ x = -1 \end{cases}$$

$$5 \quad \text{ج) } 2x^2 - 5x + 1 = 0 \quad (\text{دلت})$$

$$6 \quad \frac{+5 \pm \sqrt{25-8}}{4} \Rightarrow \begin{cases} x = \frac{5 + \sqrt{17}}{4} \\ x = \frac{5 - \sqrt{17}}{4} \end{cases}$$

$$9 \quad \text{د) } 5x^2 + 17x + 9 = 0$$

$$10 \quad \Delta = b^2 - 4ac \rightarrow 289 - 165 = 124 \quad \Delta < 0$$

11 $\leftarrow$ ریشه حقیقی ندارد

$$12 \quad \text{الف) } s^2 - 2P = 9 - 1 = 8 \quad (\text{د}) \quad x^2 - 2x - 1 = 0 \quad (9)$$

$$15 \quad \text{ب) } s^2 - 3SP = 17 + 1 = 18 \quad (\text{د}) \quad \frac{+3 \pm \sqrt{9+1}}{2}$$

$$16 \quad S = 3$$

$$17 \quad P = \frac{9-17}{4} = -2$$

$$\begin{cases} x = \frac{3 + \sqrt{10}}{2} \\ x = \frac{3 - \sqrt{10}}{2} \end{cases}$$

$$19 \quad \text{الف) } \begin{pmatrix} 7 \\ 5 \end{pmatrix} + \begin{pmatrix} 9 \\ 1 \end{pmatrix} \Rightarrow \frac{7 \times 9}{2 \times 1} + \frac{9 \times 1}{2 \times 1} = 21 + 4.5 = 25.5 \quad (\text{د})$$

$$20 \quad \text{ب) } \begin{pmatrix} 9 \\ 2 \end{pmatrix} + \begin{pmatrix} 1 \\ 2 \end{pmatrix} = \frac{9 \times 1 \times 2}{2 \times 2 \times 1} - \frac{1 \times 2}{2 \times 1} = 4.5 - 1 = 3.5 \quad (\text{د})$$