

$$\text{الف) } x^2 - 4x + 1 = 0 \Rightarrow x^2 - 4x + 9 = 1 \rightarrow (x-3)(x-5) = 1 \rightarrow (x-3) = \pm 1$$

(افزودن عدد "۴"
به دو طرف عبارت)

$$\mathcal{N} = +\mathcal{V} / +\mathcal{V}$$

$$\rightarrow n - r = \pm 1.$$

$$\frac{1}{1+r} > 1 = \frac{1}{1+r} \quad \left| \frac{1}{1+r} \right| \quad \left| \frac{1}{1+r} \right|$$

$$\text{---}) x^2 + 14x + V = 0 \Rightarrow x^2 + 14x + 49 = 9 \longrightarrow (x+7)(x+7) = 9$$

* افزون عدد "۹۹"
به دو طرف عبارت

$$\xrightarrow{*} q_1 + \tilde{r} = \pm \tilde{r} \rightarrow q_1 = \frac{\tilde{r} - \tilde{r}}{-1} = \frac{-\tilde{r} - \tilde{r}}{-V}$$

$$\boxed{q_1 = -1/V}$$

$$N = -1/-V$$

$$x^2 - 5x + 4 = 0 \Rightarrow (x-2)(x-3)$$

$$q = +2/+5$$

$$\text{---)} \quad x^2 - 2x - 15 = 0 \Rightarrow \begin{matrix} (x-5) & (x+3) \\ +5 & -3 \end{matrix}$$

$$Q_1 = +V / -r$$

$$\text{الف) } r^2 - 3r - 4 = 0 \Rightarrow \frac{r \pm \sqrt{9 - (4 \times -4)}}{2} = \frac{r \pm \sqrt{25}}{2} = \frac{r \pm 5}{2}$$

$$q_1 = \frac{r_2 \pm \sqrt{r_2^2 - r_1^2}}{r_1}$$

$$q_1 = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

$$\rightarrow r_1 = \frac{r + \sqrt{12}}{r} / \frac{r - \sqrt{12}}{r}$$

$$A = \frac{r + \sqrt{1r}}{r} / \frac{r - \sqrt{1r}}{r}$$

$$\text{الف) } q_1^2 - 3q_1 + 2 = 0 \Rightarrow \begin{matrix} (q_1 - 1) \\ +1 \end{matrix} \begin{matrix} (q_1 - 2) \\ +2 \end{matrix}$$

$$q = +1/+2$$

"جلدِ شتر"

$$\rightarrow) \quad r_{\text{H}}^2 + r_{\text{H}} - r_s^2 = 0 \Rightarrow \frac{-1 \pm \sqrt{1 + 4r_s^2}}{2} = \frac{+4}{1} / \frac{-1}{1}$$

$$\mathcal{N} = \{v_d / -1\}$$

"دلّتا"

$$\text{لـ 1) } 9x^2 - 12x + 4 = 0 \Rightarrow 9x^2 - 12x + 36 = 0 \rightarrow (x-2)(x-6) = 0$$

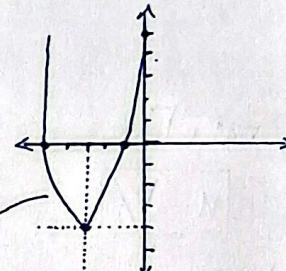
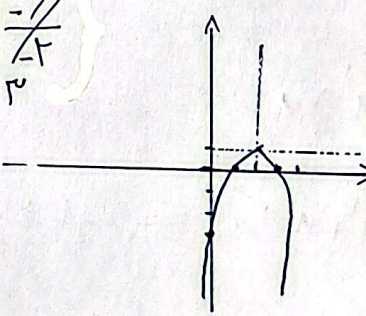
$$q = 1/1^k$$

$$\rightarrow \frac{A}{B}, \frac{V}{B}$$

$$\text{b) } 9q^2 - 1.9 + V = 0 \implies 9q^2 - 1.9 + 1 = 0 \longrightarrow (q - \underset{V}{1})(q - \underset{1}{1}) = 0$$

$$q_1 = \sqrt{r^2} / 1$$

$$\frac{2}{3} \times \frac{1}{2} = \frac{1}{3}$$

$3x^2 + 5x - 1 = 0 \quad \text{الف}$ $\frac{-5 \pm \sqrt{25 - 12}}{-6} = \frac{-5 \pm \sqrt{13}}{-6}$ $\underline{2} \text{ ریشه دارد.}$	$2x^2 - x + 2 = 0 \quad \text{ب}$ $\frac{1 \pm \sqrt{1 - 16}}{4} = \frac{1 \pm \sqrt{-15}}{4}$ $\underline{\text{ریشه ندارد.}}$	$2x^2 - 2x + 2 = 0 \quad \text{پ}$ $\frac{1 \pm \sqrt{1 - 4}}{2} = \frac{1 \pm \sqrt{-3}}{2}$ $\underline{\text{ریشه ندارد.}}$	$2x^2 - x + 1 = 0 \quad \text{ت}$ $\frac{1 \pm \sqrt{1 - 8}}{4} = \frac{1 \pm \sqrt{-7}}{4}$ $\underline{\text{ریشه ندارد.}}$	۶
$\Delta = + \Rightarrow \sqrt{9 - 1a} \quad \text{الف}$ $(-\infty, 1]$ $\text{تمام اعداد صحیح، ۱، ۰، -۱، -۲، ...}$	$\Delta = 0 \Rightarrow \sqrt{9 - 1a}$ $1a = 9 \Rightarrow a = 9$	$\Delta = - \Rightarrow \sqrt{9 - 1a}$ $a = [1, +\infty) \cup \left\{ \frac{9}{1} \right\}$	$2x^2 - 2x + a = 0$	۷
$\Delta = 0 \text{ یا } + \Rightarrow a = (-\infty, 1] \cup \left\{ \frac{9}{1} \right\}$	$\Delta = 0 \Rightarrow \sqrt{9 - 1a}$ $1a = 9 \Rightarrow a = 9$			
$\text{Min } U$ $\left. \begin{aligned} \frac{-b}{2a} &= \frac{-4}{2} = -2 \\ 9 - 11 + 5 &= -2 \end{aligned} \right\} \text{نقطات استریم}$ $x=0 \Rightarrow y=5$ $y=0 \Rightarrow x = \frac{-4 \pm \sqrt{16 - 20}}{2} = \frac{-4 \pm \sqrt{-4}}{2} = \frac{-4 \pm 2i}{2} = -2 \pm i$ 			$y = x^2 + 4x + 9$	۸
$\text{Max } U$ $\left. \begin{aligned} \frac{-b}{2a} &= \frac{-2}{-2} = 1 \\ -2 + 1 - 2 &= -3 \end{aligned} \right\} \text{نقطات استریم}$ $x=0 \rightarrow y = -3$ $x = \frac{-2 \pm \sqrt{4 - 12}}{-2} = \frac{-2 \pm \sqrt{-8}}{-2} = \frac{-2 \pm 2\sqrt{2}i}{-2} = 1 \pm \sqrt{2}i$ 			$y = x^2 + 2x - 2$	۹
$\frac{c}{a} = \text{حاصلضرب ریشه ها} \Rightarrow -2$	$s^2 - 2s = 3^2 - (2 \times 5) = 13 \quad \text{الف}$		$x^2 - 2x - 1 = 0$	۱۰
$\frac{-b}{a} = \text{حاصلجمع ریشه ها} \Rightarrow 3$	$s^2 - 3s = 4^2 - (2 \times 3) = 10 \quad \text{ب}$			