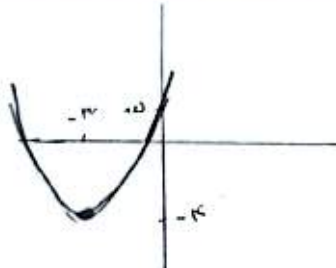
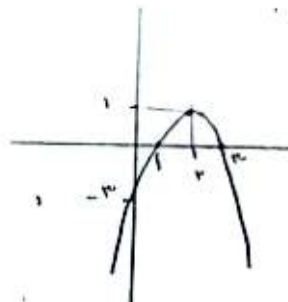


$\text{الف) } x^2 - 4x + 8 = 0$ $x^2 - 4x + 9 - 1$ $(x-2)^2 - 1$ $x = 2$	$\text{ب) } x^2 - 8x + 17 = 0$ $x^2 + 8x + 17 - 9$ $(x+4)^2 - 9$ $x = -5$	1
$\text{الف) } x^2 - 5x + 4 = 0$ $(x-2)(x-2) = 0 \begin{cases} +2 \\ +2 \end{cases}$	$\text{ب) } x^2 - 5x - 14 = 0$ $(x-7)(x+2) = 0 \begin{cases} -7 \\ +2 \end{cases}$	2
$\text{الف) } x^2 - 3x - 5 = 0$ $\frac{3 \pm \sqrt{9 - (-20)}}{2} = \frac{3 \pm \sqrt{29}}{2}$ $\frac{3 + \sqrt{29}}{2} = 4, 1.5$ $\frac{3 - \sqrt{29}}{2} = -1, 1.5$	$\text{ب) } 2x^2 - 5x + \frac{1}{2} = 0$ $\frac{5 \pm \sqrt{25 - 4}}{4} = \frac{5 \pm \sqrt{21}}{4}$ $\frac{5 + \sqrt{21}}{4} = 1.5, 1$ $\frac{5 - \sqrt{21}}{4} = 0.5$	3
$\text{الف) } x^2 - 3x + 2 = 0$ $(x-2)(x-1) = 0 \begin{cases} +1 \\ +2 \end{cases}$	$\text{ب) } 3x^2 + x - 2 = 0$ $x^2 + x - 12 = 0$ $(x+4)(x-3) = 0 \begin{cases} +3 \\ -4 \end{cases}$	4
$\text{الف) } 5x^2 - 12x + 7 = 0$ $x^2 - 12x + 7 \Delta = 0$ $(x-4)(x-7) = 0 \begin{cases} +7 \rightarrow \frac{7}{5} \\ \Delta \rightarrow 1 \end{cases}$	$\text{ب) } 3x^2 - 10x + 7 = 0$ $x^2 - 10x + 7 \Delta = 0$ $(x-3)(x-7) = 0 \begin{cases} 7 \rightarrow \frac{7}{3} \\ 3 \rightarrow 1 \end{cases}$	5

$1) -\Delta \pm \sqrt{25 - (12)}$ $= -5 \pm \sqrt{13}$ $\frac{-5 \pm \sqrt{13}}{2}$ $\frac{-5 + 1.8}{2} = -1.6$ $\frac{-5 - 1.8}{2} = -3.4$	$2) 1 \pm \sqrt{1 - 12}$ $\frac{1 \pm \sqrt{-11}}{2}$ $\Delta < 0 \rightarrow \text{ایضاً ندارد}$	$3) 4 \pm \sqrt{16 - 12}$ $\frac{4 \pm 2}{2}$ $\frac{4+2}{2} = 3$ $\frac{4-2}{2} = 1$	$4) 1 \pm \sqrt{1 - 8}$ $\frac{1 \pm \sqrt{-7}}{2}$ $\Delta < 0 \rightarrow \text{ایضاً ندارد}$	۶
$\Delta = (-2)^2 - 4(1)(a) = 4 - 4a$	$2) \Delta < 0$ $4 - 4a < 0$ $\rightarrow a > 1$	$3) \Delta > 0$ $4 - 4a > 0$ $\rightarrow a < 1$	۷	
$y = x^2 + 4x + 4$ $a > 0 \rightarrow \text{min}$ $\frac{-b}{2a} = \frac{-4}{2} = -2$ $y = 9 - 16 + 4 = -3$	$\text{ext} \left \begin{array}{l} \frac{-b}{2a} \\ -\frac{\Delta}{4a} \end{array} \right $ $\text{ext} \left \begin{array}{l} -2 \\ -3 \end{array} \right $		۸	
$y = -x^2 + 4x - 3$ $a < 0 \rightarrow \text{max}$ $\frac{-b}{2a} = \frac{-4}{-2} = 2$ $y = -4 + 16 - 3 = 9$	$\text{ext} \left \begin{array}{l} 2 \\ 9 \end{array} \right $		۹	$\Delta, \text{ نقطه او}$
$1) s^2 - 2p =$ $3^2 - 2 \times (-2) = 17$	$2) s^2 - 2p =$ $3^2 - 2 \times (-2) = 17$	$\frac{-b}{a} = -\frac{-4}{1} = 4$ $\frac{c}{a} = \frac{-3}{1} = -3$ $x^2 - 4x - 3 = 0$ $s = -\frac{b}{a}$ $p = \frac{c}{a}$	۱۰	