

الف) $x^2 - 9x + 9 = 1 \rightarrow (x-3)^2 = 1 \rightarrow x-3 = \pm 1 \rightarrow \begin{matrix} x=4 \\ x=2 \end{matrix}$	۱
ب) $x^2 + 11x + 14 = 9 \rightarrow (x+4)^2 = 9 \rightarrow x+4 = \pm 3 \rightarrow \begin{matrix} x=-1 \\ x=-7 \end{matrix}$ $2(4x)$	
الف) $(x-2)(x-3) \rightarrow \begin{matrix} x=2 \\ x=3 \end{matrix}$	۲
ب) $(x+2)(x-7) \rightarrow \begin{matrix} x=-2 \\ x=7 \end{matrix}$	
الف) $\frac{-(-3) \pm \sqrt{9+20}}{2} = \frac{3 \pm \sqrt{29}}{2}$	۳
ب) $\frac{-(-4) \pm \sqrt{16-4}}{4} = \frac{4 \pm \sqrt{12}}{4} = \frac{4 \pm 2\sqrt{3}}{4} = \frac{2 \pm \sqrt{3}}{2}$	
الف) $x^2 - 12x + 35 = 0 \rightarrow (x-5)(x-7) \rightarrow \begin{matrix} x=\frac{5}{1} \\ x=\frac{7}{1}=1 \end{matrix}$	۴
ب) $x^2 - 10x + 21 = 0 \rightarrow (x-3)(x-7) \rightarrow \begin{matrix} x=\frac{3}{1} \\ x=\frac{7}{1} \end{matrix}$	
الف) $(x-1)(x-2) \rightarrow \begin{matrix} x=1 \\ x=2 \end{matrix}$	۵
ب) $x^2 + x - 12 = (x-3)(x+4) \rightarrow \begin{matrix} x=\frac{3}{1} \\ x=\frac{-4}{1}=-1 \end{matrix}$	

پایه چهارم
سوال ۵
پایه چهارم
سوال ۴

$$\text{الف) } \frac{-5 \pm \sqrt{25-12}}{-9} \rightarrow \frac{5 \pm \sqrt{13}}{9} \quad \text{ارزش ۲} \quad \checkmark$$

$$\text{ب) } \frac{1 \pm \sqrt{1-14}}{4} \rightarrow \text{ریشه ندارد} \quad \checkmark$$

$$\text{ج) } \frac{4 \pm \sqrt{16-16}}{4} \rightarrow \text{ارزش صفای} \rightarrow \left(\frac{4}{4}, 1 \right) \quad \checkmark$$

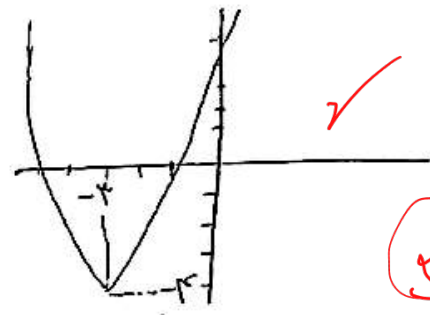
$$\text{د) } \frac{1 \pm \sqrt{1-1}}{4} \Rightarrow \text{ریشه ندارد} \quad \checkmark$$

$$\frac{3 \pm \sqrt{9-4(2a)}}{4}$$

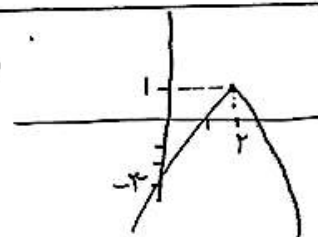
الف) $a < \frac{9}{4} \Rightarrow \Delta > 0$ $\checkmark$
 ب) $a = \frac{9}{4} \Rightarrow \Delta = 0$ $\checkmark$
 ج) $a > \frac{9}{4} \Rightarrow \Delta < 0$ $\checkmark$

راهنمای نامرئی

$$\min \left| \begin{array}{l} \frac{-9}{2} = -4.5 \\ (-4.5)^2 + 9(-4.5) + 0 = 9 - 40.5 = -31.5 \end{array} \right.$$



$$\max \left| \begin{array}{l} \frac{-3}{-1} = 3 \\ -3 + 1 - 3 = -5 \end{array} \right. \quad \leftarrow \text{الف} \rightarrow$$



$$\text{ب) } x^2 + 4x + 3 = (x+1)(x+3) \rightarrow \left. \begin{array}{l} x = -(-1) = 1 \\ x = -(-3) = 3 \end{array} \right\} \quad \checkmark$$

$$S_{\text{جمع}} = \frac{-(-3)}{1}, 3 \text{ فر}, \frac{-2}{1}, -2$$

$$\text{الف) } (3)^2 - 2(-2) = 9 + 4 = 13$$

$$\text{ب) } (3)^2 \times 3(3)(\sqrt{2}) = 27 + 18 = 45$$