

الف) $x^2 - 6x + 1 + 1 = 1 \rightarrow (x-3)^2 = 1 \rightarrow x-3 = \pm 1 \rightarrow \begin{cases} x=2 \\ x=4 \end{cases} \checkmark$

ب) $x^2 + 1x + 7 + 9 = 9 \rightarrow (x+2)^2 = 9 \rightarrow x+2 = \pm 3 \rightarrow \begin{cases} x=-7 \\ x=-1 \end{cases} \checkmark$

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الف) $x^2 - 3x + 6 = 0 \rightarrow (x-1)(x-2) = 0 \rightarrow \begin{cases} x=1 \\ x=2 \end{cases} \checkmark$

ب) $x^2 - 3x - 14 = 0 \rightarrow (x+2)(x-7) = 0 \rightarrow \begin{cases} x=-2 \\ x=7 \end{cases} \checkmark$

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الف) $x^2 - 2x - 8 = 0 \rightarrow x = \frac{2 \pm \sqrt{4+32}}{2} \rightarrow \begin{cases} x = \frac{2+\sqrt{36}}{2} \\ x = \frac{2-\sqrt{36}}{2} \end{cases} \checkmark$

ب) $2x^2 - 2x + \frac{1}{2} = 0 \rightarrow x = \frac{2 \pm \sqrt{4-2}}{4} \rightarrow \begin{cases} x = \frac{2+\sqrt{2}}{4} \\ x = \frac{2-\sqrt{2}}{4} \end{cases} \checkmark$

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الف) $x^2 - 2x + 2 = 0 \rightarrow a+b+c=0 \Rightarrow \begin{cases} x=1 \\ x = \frac{c}{a} = 2 \end{cases} \checkmark$

ب) $2x^2 + x - 2 = 0 \rightarrow a+c=b \Rightarrow \begin{cases} x=-1 \\ x = -\frac{c}{a} = -\left(\frac{-2}{2}\right) = 1 \end{cases} \checkmark$

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الف) $x^2 - 12x + 35 = 0 \rightarrow x^2 - 12x + 35 \rightarrow (x-5)(x-7) \rightarrow \begin{cases} x = \frac{0}{0} = 1 \\ x = \frac{35}{0} \end{cases} \checkmark$

ب) $2x^2 - 10x + 12 = 0 \rightarrow x^2 - 5x + 6 \rightarrow (x-2)(x-3) \rightarrow \begin{cases} x = \frac{12}{2} = 6 \\ x = \frac{3}{2} = 1.5 \end{cases} \checkmark$

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الف) $-2x^2 + 8x - 1 = 0 \rightarrow x = \frac{-8 \pm \sqrt{64 - 8}}{-4}$

سؤال از ما
فکراد ریسه حلایه!
عد ریسه جابه

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ب) $2x^2 - x + 2 = 0 \rightarrow x = \frac{1 \pm \sqrt{1 - 16}}{4}$

$\Delta = -15 \Rightarrow$ ریسه ندارد ✓

ریسه ندارد ($\Delta = -15$) ✓

ج) $2x^2 - 4x + 2 = 0 \rightarrow x = \frac{4 \pm \sqrt{16 - 16}}{4} = \frac{4}{4} = 1$ ✓

لی ریسه مضاعف

د) $2x^2 - x + 2 = 0 \rightarrow x = \frac{1 \pm \sqrt{1 - 16}}{4}$

✓

الف) $\Delta > 0 \rightarrow b^2 - 4ac > 0 \rightarrow 9 - 11a > 0 \rightarrow a < \frac{9}{11}$ ✓

نکته: $c = a$
 $2x^2 - 2x + a$

ب) $\Delta = 0 \rightarrow b^2 - 4ac = 0 \rightarrow 9 - 11a = 0 \rightarrow a = \frac{9}{11}$ ✓

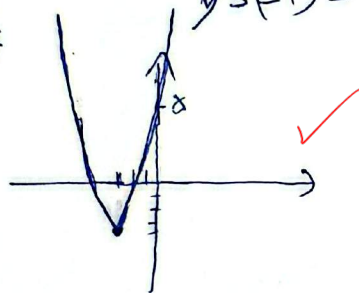
ج) $\Delta < 0 \rightarrow b^2 - 4ac < 0 \rightarrow 9 - 11a < 0 \rightarrow a > \frac{9}{11}$ ✓

د) $\Delta \geq 0 \rightarrow b^2 - 4ac \geq 0 \rightarrow 9 - 11a \geq 0 \rightarrow a \leq \frac{9}{11}$ ✓

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الف) $\min \left| \frac{-b}{2a} \right| = -2$

$y = (x)^2 - 11x + 8 = -2$ ✓

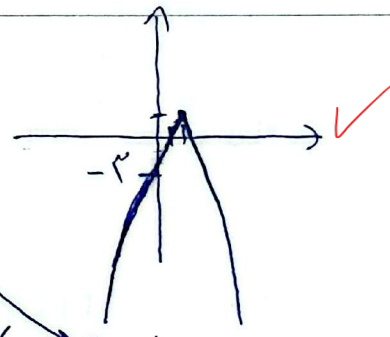


ب)

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الف) $\max \left| \frac{-b}{2a} \right| = 2$

$y = -x^2 + 11x - 9 = 1$



ب) $x = \frac{-b \pm \sqrt{\Delta}}{2a} = \frac{-4 \pm \sqrt{16 - 12}}{-2} = \frac{-4 \pm 2}{-2}$

نقاط 1 و 2

$x=2, x=1$

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$x^2 - 2x - 2 = 0 \rightarrow x^2 - 5x + 7 = 0 \rightarrow S = 5, P = -2$

الف) $S^2 - 2P = 5^2 - (2 \times -2) = 25 + 4 = 29$ ✓

ب) $S^2 - 2SP = 5^2 - (2 \times 5 \times -2) = 25 + 20 = 45$ ✓

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