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نام و نام خانوادگی آریا علیا پاسخنامه تشریحی تکلیف شماره کلاس دهم ریاضی

$y = x^2 + 4x + 5$ $\min \left \frac{-b}{2a} \right \Rightarrow \min \begin{cases} -3 \\ -4 \end{cases}$ $x = \frac{-b}{2a} = \frac{-4}{2} = -2$ $y = 9 - 16 + 5 = -1$ (الف)	(ب)	۲
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$y = -x^2 + 4x - 3$ $\max \left \frac{-b}{2a} \right \Rightarrow \max \begin{cases} 2 \\ 1 \end{cases}$ $x = \frac{-b}{2a} = \frac{-4}{-2} = 2$ $y = -4 + 8 - 3 = 1$	(الف)	$y = 0$ $-(x^2 - 4x + 3)$ $-(x-1)(x-3) = 0$ $x = 1 \text{ یا } 3$	۳
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$9 - 16a > 0$ $-16a > -9$ $16a < 9$ $a < \frac{9}{16}$ (الف)	$9 - 16a = 0$ $a = \frac{9}{16}$	$9 - 16a < 0$ $-16a < -9$ $a > \frac{9}{16}$	$x^2 - 3x + 2a = 0$ $\downarrow$ -3 ± 1 $a = -\frac{1}{4}$ $\downarrow$ -1	۴
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$x^2 - 2x - 1 = 0$ $x^2 - 2x + 1 = 2$ $(x-1)^2 = 2$ $x-1 = \pm\sqrt{2}$ $x = 1+\sqrt{2} \text{ یا } 1-\sqrt{2}$	(الف)	$x^2 - x - 1 = 0$ $x^2 - x + \frac{1}{4} = \frac{5}{4}$ $(x - \frac{1}{2})^2 = \frac{5}{4}$ $x - \frac{1}{2} = \pm\sqrt{\frac{5}{4}}$ $x = \frac{1+\sqrt{5}}{2} \text{ یا } \frac{1-\sqrt{5}}{2}$	(ب)	۵
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$\Delta = b^2 - 4ac$ $\Delta = 4 + 4 = 8$ $\text{ریشه} = \frac{-b \pm \sqrt{\Delta}}{2a} = \frac{-2 \pm \sqrt{8}}{2} = \frac{-2 \pm 2\sqrt{2}}{2} = -1 \pm \sqrt{2}$	(الف)	$\Delta = b^2 - 4ac$ $\Delta = 1 + 14 = 15$ $\text{ریشه} = \frac{-1 \pm \sqrt{15}}{2}$	(ب)	۶
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$x^2 - 11x + 28 = 0$ $(x - 7)(x - 4) = 0$ $x = 7 \text{ و } 4$	(ب)	$x^2 + 3x - 28 = 0$ $(x + 7)(x - 4) = 0$ $x = -7 \text{ و } 4$	(ب)	۲
$2x^2 - 12x + 10 = 0$ $x^2 - 6x + 5 = 0$ $(x - 5)(x - 1) = 0$ $x = \frac{+5}{1} = 5 \text{ و } \frac{+1}{1} = 1$	(ب)	$3x^2 - 10x + 7 = 0$ $x^2 - 10x + 21 = 0$ $(x - 7)(x - 3) = 0$ $x = \frac{+7}{1} = 7 \text{ و } \frac{+3}{1} = 3$	(ب)	۲
$2x^2 - 5x + 2 = 0$ $x^2 - 5x + 4 = 0$ $(x - 4)(x - 1) = 0$ $x = \frac{4}{1} = 4 \text{ و } \frac{1}{1} = 1$	(ب)	$2x^2 + 5x + 2 = 0$ $x^2 + 5x + 4 = 0$ $(x + 4)(x + 1) = 0$ $x = -\frac{4}{1} = -4 \text{ و } -\frac{1}{1} = -1$	(ب)	۲
$S = -\frac{b}{a} \quad P = \frac{c}{a}$ $S = \frac{6}{1} = 6 \quad P = \frac{-2}{1} = -2$ $S - 2P = 6 + 4 = 10$		$S = -\frac{b}{a} \quad P = \frac{c}{a}$ $S = 3 \quad P = -2$ $S^2 - 2SP = 9 + 4 = 13$		۲
$\begin{pmatrix} 6 \\ 10 \end{pmatrix} + \begin{pmatrix} 9 \\ 2 \end{pmatrix} = \begin{pmatrix} 15 \\ 12 \end{pmatrix}$ $\frac{6 \times 9}{10} = 5.4$ $\frac{9 \times 10}{2} = 45$	(ب)	$\begin{pmatrix} 9 \\ 2 \end{pmatrix} - \begin{pmatrix} 1 \\ 2 \end{pmatrix} = \begin{pmatrix} 8 \\ 0 \end{pmatrix}$ $\frac{9 \times 1}{2 \times 2} = \frac{9}{4} = 2.25$ $\frac{1 \times 2}{2} = 1$	(ب)	۱۱۵