نام و نام خانوادگی ..... پاسخنامه تشریحی تکلیف شماره 1 ..... کلاس ..... A

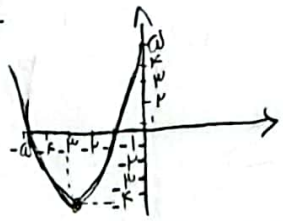
$y = x^2 + 6x + a$ min

$\frac{-b}{2a} \to \frac{-6}{2} = -3 \to (-3)^2 + 6(-3) + a = -4$

$9 \quad -18$

$\square\ y = -4$

$a > 0$



$(x+1)(x+a) = 0$

$x = -1$

$x = -a$

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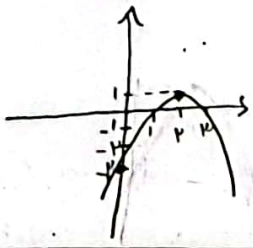
$y = -x^2 + 4x - 3$

$\max \left| \frac{-b}{2a} \quad \frac{-4}{-2} = 2 \right.$

$\square\ -(2)^2 + 4(2) - 3 = +1$

$-4 \qquad 8$



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$9 - 8 = 1 \quad \Delta > 0$

$2x^2 - 3x + 1 = 0 \to \Delta = b^2 - 4ac \to (-3)^2 - 4(2)(1)$ $a = 1 \leftarrow a \neq 0 \leftarrow 1$

$2x^2 - 3x + a = 0 \quad \Delta = b^2 - 4ac \to (-3)^2 - 4(2)(a)$ $a = \frac{9}{8}$ 2

$9 - 8 \times \frac{9}{8} = 0$ $\Delta = 0$

$2 \leftarrow a > 1 \leftarrow \Delta < 0$ 3

$2x^2 - 3x + 1 = \left| \frac{c}{a} = \frac{1}{2} \right.$ $a = 1$ 4

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$x^2 - 2x - 1 = 0 \to x^2 - 2x - 1 + 2 = +2$ 1

$x^2 - 2x + 1 = +2$

$(x-1)^2 = +2$

$x - 1 = \pm\sqrt{2}$

$x = +\sqrt{2} + 1$

$x = -\sqrt{2} + 1$

$x^2 - 2x - 1 = 0$ 2

$2 \times \square = -1$

$-\frac{1}{2}$

$(x - \frac{1}{2})^2$

$x^2 - x - 1 + \frac{a}{4} = \frac{a}{4}$

$(x - \frac{1}{2})^2 = \frac{a}{4} \quad x - \frac{1}{2} = \pm\frac{\sqrt{a}}{2}$

$x = \frac{+\sqrt{a}+1}{2}$

$x = \frac{-\sqrt{a}+1}{2}$

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$x^2 - 2x - 1 = 0 \quad \Delta = b^2 - 4ac$ 1

$(-2)^2 - 4(1)(-1) = 4 + 4 = 8$

$x = \frac{-b \pm \sqrt{\Delta}}{2a}$

$x = \frac{-(-2) \pm \sqrt{8}}{2}$

$x^2 + x - 4 = 0 \quad \Delta = b^2 - 4ac$ 2

$(1)^2 - 4(1)(-4) = 1 + 16 = 17$

$x = \frac{-1 \pm \sqrt{17}}{2}$

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2

۶	$x^2+3x-28=0$ $(x+7)(x-4)$ $x=-7$ $x=+4$	$x^2-11x+28=0$ $(x-4)(x-7)$ 1 $x-4=0$ $x=4$ $x-7=0$ $x=7$
۷	$3x^2-10x+7=0$ $x^2-10x+21$ $(x-3)(x-7)$ $x=3$ $x=7$ $1=\frac{3}{3}$ و $\frac{7}{3}$	$5x^2-12x+7=0$ $x^2-12x+35=0 \rightarrow (x-7)(x-5)$ $x=7$ $x=5$ $\frac{7}{5}$ / $\frac{5}{5}=1$

۸	الف) $2x^2-5x+3=0$ $\frac{c}{a}=\frac{3}{2}$ / $x=1$	ب) $2x^2+5x+3=0$ $-\frac{c}{a}=-\frac{3}{2}$ / $x=-1$	ج) $2x^2-5x+1=0$ $\Delta=b^2-4ac \rightarrow (-5)^2-4(2)(1)=17$ -8 $x=\frac{+5\pm\sqrt{17}}{4}$	د) $4x^2+7x+9=0$ $\Delta=b^2-4ac$ $(7)^2-4(4)(9)$ $49-144=-95$ ریشه ندارد

۹	الف) $s^2-2p=(-3)^2-2(-2)=13$ $9+4=13$	ب) $s^3-3sp=$ $(-3)^3-3(-3)(-2)=-18-27=-45$ -27 $\quad 6$
۱۰	الف) $\binom{7}{5}+\binom{9}{2}=\frac{7\times6\times5\times4\times3}{5\times4\times3\times2\times1}=$ $\frac{7\times6}{2\times1}=21$ / $\frac{9\times8}{2\times1}=36$ $21+36=57$	ب) $\binom{9}{3}-\binom{8}{2}=\frac{9\times8\times7}{3\times2\times1}=84$ / $\frac{8\times7}{2}=28 \rightarrow 84-28=56$