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نام و نام خانوادگی ..نرگس اسلامی نژاد..... پاسخنامه تشریحی تکلیف شماره ۲۳.. کلاس ..دهم پذیرش..

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$\frac{-b}{2a} = \frac{-1}{1}$

$b = 2a$

$y = ax^2 + bx + c$

$9 = a - b + c \rightarrow c = 9 + a$

$1 = 9a + 3b + c \rightarrow c = 1 - 15a$

$\rightarrow 9 + a = 1 - 15a$

$8 = -14a$

$a = -\frac{1}{2}$, $b = 2 \times -\frac{1}{2} = -1$

$c = 9 - \frac{1}{2} = \frac{17}{2}$

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$y = ax^2 + bx + c$

$y = -\frac{1}{2}x^2 - x + \frac{17}{2}$

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$2x^2 + mx + m + 4 = 0$

$\Delta > 0 \rightarrow b^2 - 4ac \rightarrow m^2 - 8m - 48 > 0$

$-8(m+4)$

$(m-12)(m+4) > 0$

$4m = 12$ $4m = -4$

-4	12
$+$	$-$	$+$

جمع $\rightarrow -\frac{b}{a} > 0 \rightarrow \frac{-m}{2} > 0$

$m < 0$

ضرب $\rightarrow \frac{c}{a} = \frac{m+4}{2} > 0 \rightarrow m + 4 > 0$

$m > -4$

$m \rightarrow -4 < m < 0$

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$y = 3x^2 + (2m-1)x + 2 - m = 0$

$-\frac{b}{a} = \frac{a}{c} \rightarrow \frac{1-2m}{3} = \frac{3}{2-m} \rightarrow 9 = (1-2m)(2-m)$

$9 = 2 - m - 4m + 2m^2$

$2m^2 - 5m - 7 = 0$

$m^2 - 5m - 14 = 0 \rightarrow (m-7)(m+2) = 0$

$4m = \frac{7}{2}$ $4m = \frac{-2}{2} = -1$

$m = -1 \rightarrow y = 3x^2 - 2x + 3 = 0 \rightarrow \Delta = b^2 - 4ac = 9 - 24 < 0$ ✗

$m = \frac{7}{2} \rightarrow y = 3x^2 + 4x + \frac{1}{2} = 0 \rightarrow$ جواب مثبت c, a = علامت $\Delta > 0$ ✓

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$x^2 - x - 4 = 0$

S: جمع $\rightarrow x_1 + x_2 = \frac{-b}{a} = \frac{1}{1} = 1$

P: ضرب $\rightarrow x_1 \times x_2 = \frac{c}{a} = \frac{-4}{1} = -4$

$\frac{x_2^3 + x_1^3}{x_1 x_2} = \frac{1}{-4}$

$x_2^3 + \frac{1}{x_1^3} + x_1^3 + \frac{1}{x_2^3} =$

$S^3 - 3PS = 1 + 12 = 13$ $\rightsquigarrow \frac{13}{4} = \frac{-b}{a}$

$(x_2^3 + \frac{1}{x_1^3})(x_1^3 + \frac{1}{x_2^3}) = 6(x_1 x_2)^3 + x_2^6 + x_1^6 + \frac{1}{(x_1 x_2)^3}$

$(-4)^3 + (x_1 + x_2)^3 - 3x_1 x_2(x_1 + x_2)$

$-64 + 9 + \frac{1}{-4} = -\frac{221}{4} =$ ضرب $= \frac{c}{a}$

$y = 4x^2 - 13x - 221$

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$(\sqrt[3]{x^2} + \frac{1}{\sqrt[3]{x^2}} + 1)(\sqrt[3]{x^2} - 1) = 2\sqrt[3]{x}$

$x\sqrt[3]{x} - \sqrt[3]{x^2} + 1 + \sqrt[3]{x^2} - 1 = 2\sqrt[3]{x} \rightarrow x \times x^{\frac{1}{3}} - x^{\frac{2}{3}} - 2x^{\frac{1}{3}} = 0 \rightarrow x^{\frac{1}{3}}(x^{\frac{2}{3}} - x^{\frac{1}{3}} - 2) = 0$

$x^2 - x^1 - 2x = 0 \rightarrow x^2 - 2x - 1 = 0 \rightarrow \Delta = b^2 - 4ac = 4 + 4 = 8$

$x = \frac{-b \pm \sqrt{\Delta}}{2a} = \frac{2 \pm 2\sqrt{2}}{2} = 1 \pm \sqrt{2}$

$x_1 + x_2 = 2$

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مجموع → $x_1 + x_2$

ضرب → $x_1 \times x_2 = \frac{3}{4} \rightarrow 3x^2 = \frac{3}{4} \rightarrow x^2 = \frac{1}{4} \rightarrow x = \pm\frac{1}{2}$

جمع → $x_1 + x_2 = \frac{a}{3} = \frac{x_2}{1} \rightarrow a = 12x_2$

$x = \frac{1}{2} \rightarrow a = \frac{3}{2} \times 12 = 18$

$x = -\frac{1}{2} \rightarrow a = -\frac{3}{2} \times 12 = -18$ → گزینه ۱

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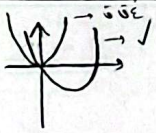

$a > 0$

$P = 0$

$S < 0 \rightarrow -\frac{b}{a} < 0$

	$-\frac{3}{2}$	0
	−	+
	−	∅

۲ جواب مقداره

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$y = x^2 + ax - 2$ $\quad$ $y = -x^2 - 2x + b$

$x = \frac{-b}{2a} = \frac{-a}{2}$ $\quad$ $x = \frac{-b}{2a} = \frac{2}{-2} = -1$

$\frac{-a}{2} = \frac{-1}{1} \rightarrow a = 2$ $\quad$ $y = 1, x = -1 \rightarrow 1 = -1 - 2 + b \rightarrow b = 4$

$x^2 + 2x - 2 = 1 \rightarrow x^2 + 2x - 3 = 0$ $\quad$ $y = 1, x = -3 \rightarrow 1 = -9 + 6 + b \rightarrow b = 4$

$(x+3)(x-1) = 0$ $\quad$ $a \times b = 8$

$x = -3$ یا $x = 1$

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$2x^2 - ax + b = 0$; $2ax^2 + ax - 4 = 0$

ریشه‌ها x_1, x_2 ; ریشه‌ها S_1, S_2

$x_1 = S_1 + 0/5$

$x_2 = S_2 + 0/5$

مجموع ریشه‌ها: $x_1 + x_2 = \frac{a}{2}$ $\quad$ $S_1 + S_2 = \frac{-a}{2a} = -\frac{1}{2}$

ضرب ریشه‌ها: $x_1 \times x_2 = \frac{b}{2}$ $\quad$ $S_1 \times S_2 = \frac{-4}{2a} = -\frac{2}{a}$

$x_1 + x_2 = S_1 + S_2 + 1$

$\frac{a}{2} = -\frac{1}{2} + \frac{1}{2} \rightarrow \frac{a}{2} = \frac{1}{2} \rightarrow a = 1$

$x_1 \times x_2 = (S_1 + 0/5)(S_2 + 0/5)$

$\frac{b}{2} = -\frac{3}{2a} \rightarrow \frac{b}{2} = -\frac{3}{1} \rightarrow b = -6$

$\left[\frac{ab}{2}\right] = \left[\frac{-6}{2}\right] = [-3] = -2$

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$x^2 + 2mx - 3m = x^2 + 4x + m$

$-6x = 2mx \rightarrow m = -3$

$2x^2 + 2mx + 3x = 0 \rightarrow x^2 + 3x = x(x+3) = 0$

$x = 0$ ✗ ; $x = -3$ ✓

$x^2 + 4x + 3 = 0 \rightarrow (x+1)(x+3) = 0$

$x^2 + 2x - 15 = 0 \rightarrow (x-3)(x+5) = 0$

$x = 3$

اشتراک → ۱

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