۱۹۱۷۵

page: ( )

Subject:

Year: Month: Day:

۱

$y = ax^2 + bx + c$

$A = (-1, 9) \Rightarrow \frac{-b}{2a} = -1 \Rightarrow b = 2a$

$\left.\begin{matrix} 9 = a - b + c \\ 1 = 9a + 3b + c \end{matrix}\right\} \xrightarrow{\times 4} -8 = 14a + 4b \Rightarrow -8 = 14a \Rightarrow a = \boxed{-\frac{1}{2}}$

$\boxed{b = -1}$

$\boxed{c = \frac{17}{2}}$

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

۲

$\Delta > 0 \Rightarrow b^2 > 4ac \Rightarrow m^2 + 8m + 16 > 0 \Rightarrow (m+4)^2 > 0$

$m \neq -4$

$\delta > 0 \Rightarrow -\frac{m}{2} > 0 \Rightarrow -m > 0 \Rightarrow m < 0$

$\rho > 0 \Rightarrow \frac{m+4}{2} > 0 \Rightarrow m + 4 > 0 \Rightarrow m > -4$

$\cap$

$\boxed{-4 < m < 0}$

$a > 0$ /

۳

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

$\Delta > 0 \Rightarrow 4m^2 + 1 - 4m - 4 + 16m > 0 \Rightarrow 4m^2 + 12m - 3 > 0$

$\delta = \frac{1}{\rho} \Rightarrow \frac{-b}{a} = \frac{a}{c} \Rightarrow a^2 = -bc$

$a = -(2m-1)(2-m) \Rightarrow a = 2 - m - 4m + 2m^2 \Rightarrow 2m^2 - 5m - 1 = 0$

$m^2 - 5m - 14 = 0 \Rightarrow (2m-7)(m+1)$

$\left(\frac{7}{2}\right) \quad (-1)$

شرط‌های دیگر را نیز بررسی کنید

$m = -1 \Rightarrow y = 2x^2 - 2x + 2$

$\Delta < 0$ غ ق ق X

$m = \frac{7}{2} \Rightarrow y = 2x^2 + 4x - \frac{3}{2}$ ✓

Arman

$\Delta > 0$

Subject:
Year: Month: Day: page: ( )

$x^2-x-6=0$ $\quad S^2-2P=1+12$ زهر اعداد ریشه

۲۵) $S=x_1^2+\frac{1}{x_1}+x_2^2+\frac{1}{x_2}\Rightarrow x_1^2+x_2^2+\frac{1}{x_1}+\frac{1}{x_2}\Rightarrow$

$\frac{x_1+x_2}{x_1x_2}$

$13-\frac{1}{4}=\boxed{\frac{51}{4}}$

$P=\left(x_1^2+\frac{1}{x_1}\right)\left(x_2^2+\frac{1}{x_2}\right)\Rightarrow x_1^2x_2^2+\frac{x_2^3}{x_2}+\frac{x_1^3}{x_1}+\frac{1}{x_1x_2}\Rightarrow$

$(P)^2 \quad S^3-2P \quad \frac{1}{P}$

$-44+1+8-\frac{1}{4}=\boxed{\frac{-221}{4}}$

$y=x^2-Sx+P\Rightarrow \boxed{y=x^2-\frac{51}{4}x-\frac{221}{4}}$

۲) گزینه

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

$\sqrt[3]{x^2}-\frac{\sqrt[3]{x}}{x}-2\sqrt[3]{x}=0 \xrightarrow{\times x^2} x^2\sqrt[3]{x}-2x\sqrt{x}-\sqrt[3]{x}=0\Rightarrow$

$(2\sqrt[3]{x})x^2-(2\sqrt[3]{x})x-\sqrt[3]{x}=0\Rightarrow S=\frac{-b}{a}=\frac{2\sqrt[3]{x}}{\sqrt[3]{x}}=\boxed{2}$

۱) گزینه

$x_2=2x_1 \qquad x_1+x_2\Rightarrow x_1+2x_1=4x_1 \qquad x_1\times x_2=3x_1^2$

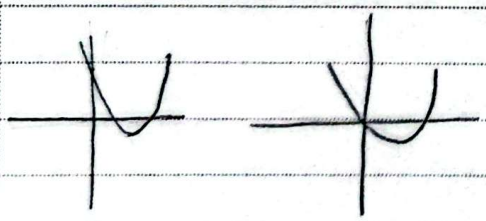
$S=\frac{-b}{a}=\frac{a}{3}=4x_1\Rightarrow 12x_1=a \xrightarrow{\rightarrow 1=a \atop \rightarrow -1=a} -8-8=\boxed{-16}$ باسخ

$1-8-8=-15$

$P=\frac{c}{a}=\frac{4}{3}=3x_1^2\Rightarrow 9x_1^2=4\Rightarrow x_1^2=\frac{4}{9}\Rightarrow \boxed{x_1=\pm\frac{2}{3}}$

اشتباه است 14

۲) گزینه



$\Rightarrow a>0$

۲ ریشه

$S=\frac{-2-2a}{a}>0 \qquad \frac{-3}{-4+5}\rightarrow -3<a<0$

چون معادله سهمی عرض از صفر ندارد این حالت ع ق ق

Arman

$P=0$

به ازای همین مقدار این سهمی بر محور است. a مشترک نگیریم بین مقدار های

زهرا سادات حسینی

۲ (۱)

$x_0 = \frac{-b}{2a} = \frac{-a}{2} = \frac{2}{-2} \Rightarrow \boxed{2 = a}$

$y = x^2 + 2x - 3 \quad \left.\begin{matrix} 1 = x^2 + 2x - 3 \\ y = -x^2 - 2x + b \end{matrix}\right\} 1 = -x^2 - 2x + b$

$4 = b - 3$

$\boxed{4 = b}$

$\boxed{ab = 2 \times 4 = 8}$

۲ (۲)

$\alpha, \beta \Rightarrow \left(\alpha + \frac{1}{2}\right), \left(\beta + \frac{1}{2}\right)$

$\frac{a \times b}{c} = \left[\frac{-3}{2}\right] = \boxed{-2}$

$S = \frac{-a}{2a} = \frac{-1}{2} = \alpha + \beta$

$P = \frac{c}{a} = \frac{-4}{2a} = \frac{-2}{a} = \alpha\beta \Rightarrow -2 = \alpha\beta$

$2x^2 - ax + b = 0$ ($-\frac{1}{2}$)

$S = \frac{a}{2} = \alpha + \frac{1}{2} + \beta + \frac{1}{2} \Rightarrow \alpha + \beta + 1 = \frac{a}{2} \Rightarrow \boxed{a = 2}$

$P = \frac{b}{4} = \left(\alpha + \frac{1}{2}\right)\left(\beta + \frac{1}{2}\right) \rightarrow \frac{b}{4} = \frac{1}{8} + (\alpha + \beta)\frac{1}{2} + \alpha\beta \Rightarrow$ ($\alpha + \beta = -\frac{1}{2}$, $\alpha\beta = -2$)

$\frac{b}{4} = \frac{1}{8} - \frac{1}{8} - 2 \Rightarrow \boxed{b = -8}$

Subject:
Year. Month. Date. ( )
Name.

۲ ۱۵

$x^2+4x+m=0 \Rightarrow S' = \frac{-4}{1} = -4 \Rightarrow x_1+x_2$

$x^2+2x-3m=0 \Rightarrow S'' = \frac{-2}{1} = -2 \Rightarrow x_1+x_2$

$S'-S'' \Rightarrow x_1+x_2-(x_1+x_2) = x_2-x_3 \Rightarrow -4+2 = -2$