امیرعلی مرادی — دهم ریاضی B

۱.

$x = -1$
$a - b + c = 9$
$x = 2$
$9a + 3b + c = 1$
$-\frac{b}{2a} = -1 \Rightarrow b = 2a$

$\Rightarrow 8a + 8b = -8$

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

$a - b + c = 9 \Rightarrow -\frac{1}{2} + 1 + c = 9$

$\frac{1}{2} + c = 9$

$c = \frac{17}{2} \Rightarrow -\frac{x^2}{2} - x - \frac{17}{2} = 0$

۲.

$\Delta = m^2 - 8m - 48 > 0$

$64 + 192 = 256 \Rightarrow \frac{m \pm 16}{2}$ → 12 , -4

$-\frac{b}{a} > 0 \Rightarrow -\frac{100}{2} > 0 \Rightarrow m < 0$

$\frac{c}{a} > 0 \Rightarrow \frac{m+6}{a} > 0 \Rightarrow m > -6$

$\Rightarrow -4 > m > -6$

۳.

$\frac{1-2m}{3} = \frac{3}{2-m} \Rightarrow 2m^2 - 5m + 2 = 9 \Rightarrow 2m^2 - 5m - 7 = 0$

$\Delta = 25 + 56 = 81$

$m = \frac{5 \pm 9}{4}$ → -1 , $\frac{7}{2}$

چون که ... است
غیرقابل قبول است

۴.

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

$A + B = \frac{1}{x^2} + \frac{1}{x} + x_2^3 + x_1^3$

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

$\Rightarrow \frac{x_2 + x_1}{x_2 x_1} + x_1^3 + x_2^3 \Rightarrow 13 - \frac{1}{4} = \frac{51}{4}$

$AB = \left(\frac{1}{x_2} + x_1^3\right)\left(\frac{1}{x_1} + x_2^3\right)$

$\Rightarrow x_1^3 x_2^3 = -64 \Rightarrow x_1^2 + x_2^2 = (x_1 + x_2)^2 - 2x_1 x_2 = 1 - (-8) = 9 \Rightarrow$

$AB = \frac{1}{4} - 9 - 64 = \frac{-291}{4}$

$-4x^2 + 51x + 291$