

$$x = -1 \Rightarrow a - b + c = 9 \text{ or } 8a = -8 \Rightarrow a = -\frac{1}{2}, b = -1 \quad 1$$

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

$$9 - \frac{1}{2} + 1 + c = 9 \Rightarrow c = \frac{17}{2} \Rightarrow -\frac{2a}{2} = x + \frac{17}{2} = 0$$

$$\Delta > 0 \Rightarrow m^2 - 4(2)(m+6) > 0 \Rightarrow m^2 - 8m - 48 > 0$$

$$\Rightarrow (m - 12)(m + 4) > 0 \Rightarrow \begin{matrix} -4 & 12 \\ + & - & + \end{matrix} \Rightarrow (-\infty, -4) \cup (12, +\infty)$$

$$\alpha + \beta = \frac{1}{\alpha\beta} \Rightarrow -\frac{b}{a} = \frac{1}{\frac{c}{a}} \Rightarrow -\frac{b}{a} = \frac{a}{c} \quad 3$$

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

$$m^2 - 5m - 14 = 0 \Rightarrow (m - 7)(m + 2) \quad \begin{matrix} m = \frac{7}{2} = 3.5 \\ m = -\frac{2}{2} = -1 \end{matrix}$$

$$x_1 + x_2 = 7, x_1 x_2 = 4. \quad x_1^3 + \frac{1}{x_2} = A, B = x_2^3 + \frac{1}{x_1} \quad 4$$

$$\Rightarrow A + B = \frac{1}{x_2^2} + \frac{1}{x_1} + x_2^3 + x_1^3 = \frac{x_2 + x_1}{x_2 x_1} + x_2^3 + x_1^3 = 13 - \frac{1}{4} = \frac{51}{4}$$

$$AB = \left(\frac{1}{x_2} + x_1^3\right)\left(\frac{1}{x_1} + x_2^3\right) = x_1^3 x_2^3 = -64 \Rightarrow x_1^2 + x_2^2 = (x_1 + x_2)^2 - 2x_1 x_2 = 7^2 - 2(4) = 29$$

$$\Rightarrow AB = \frac{1}{4} - 9 - 64 = -\frac{227}{4} \Rightarrow -4x^2 + 51x + 227$$

$$\frac{(3\sqrt{2n} + 3\sqrt{2n^2 + 1})(3\sqrt{2n^2 + 1})}{3\sqrt{2n^2}} = 2\sqrt{2n} \Rightarrow 2n^2 - 1 = 2n \Rightarrow n^2 - 2n - 1 = 0 \quad 5$$

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

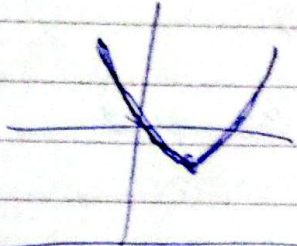
$$P = \alpha\beta = 3\alpha^2 = \frac{4}{3} \Rightarrow \alpha = \pm \frac{2}{3}$$

-6

$$S = \alpha + \beta \Rightarrow 4\alpha = \frac{a}{3} \Rightarrow \pm \frac{8}{3} = \frac{a}{3} \Rightarrow a + 8 \Rightarrow \text{إجمالي} = -16$$

 $C = 0 = \text{إجمالي}$

$$a > 0$$



$$\Rightarrow -\frac{b}{2a} > 0 \Rightarrow \frac{-3-2a}{2a} > 0 \Rightarrow \frac{-3}{-2} + \frac{0}{-2}$$

$$\Rightarrow a \in [-\frac{3}{2}, 0)$$

$$-\frac{b}{2a} \Rightarrow -\frac{a}{2} \Rightarrow \frac{1}{-2} \Rightarrow a = 2 \quad 4\Delta_1 \Rightarrow 4 + 8 = 4 - 4(-1)(1) \Rightarrow 12 = 8$$

$$a \cdot b = 2 \cdot 2 = 4$$

-8

$$4 + 4b = b = 2$$

$$\frac{a}{2} + \frac{a}{2a} = 1 \Rightarrow \frac{a}{2} + \frac{1}{2} = 1 \Rightarrow a = 1 \quad -\frac{b}{2a} = -\frac{6}{2} = -3$$

-9

$$\Rightarrow \frac{b}{2} = -3 \Rightarrow b = -6 \quad \frac{ab}{4} = \frac{-6}{4} = \left[-\frac{6}{4}\right] = -2$$

$$S_A = P + Z, S_B = k + P \Rightarrow S_A - S_B = Z - k$$

-10

$$S_A = -6, S_B = -2 \Rightarrow Z - k = -2 - (-6) = +4$$

$$Z = n^2 + 6n + m$$

$$n^2 + 2n - 3m = k, P$$