

هم نخبه (صبر)

بنام پروردگار و اولادها

نظارتی ۲۵

$$y = a(x+1)^2 + 9 \xrightarrow{\text{نکته (۳/۱)}} |9a+9|=1 \rightarrow az = \frac{1}{p}$$

$$y = -\frac{1}{p}(x+1)^2 + 9 \rightarrow -\frac{1}{p}(x^2 + 2x + 1) + 9 = -\frac{1}{p}x^2 - \frac{2}{p}x + \frac{1+p}{p}$$

$$\Delta > 0 \Rightarrow m^2 - 4(2(m+9)) > 0 \rightarrow m^2 - 4m - 72 > 0$$

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

$$\frac{c}{a} > \frac{m+9}{2} > 0 \rightarrow m > -9 \rightarrow m = (-9, -1)$$

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$$S = 1 \Rightarrow \alpha + \beta = 1 \rightarrow \frac{-2m+1}{3} = \frac{1}{1-m} \Rightarrow -2m+1 = 1-m \Rightarrow -m = 0 \Rightarrow m = 0$$

$$m^2 - 4m - 12 > 0 \rightarrow (m-6)(m+2) \rightarrow m_2 = -1$$

$$m_2 = -1 \rightarrow 2x^2 - 3x + 3 > 0 \rightarrow \Delta < 0 \text{ ق ق}$$

$$m_2 = \frac{1}{2} \rightarrow 2x^2 + 9x - \frac{1}{2} > 0 \rightarrow \Delta > 0 \text{ ق ق}$$

$$x^2 - x - 1 = 0 \quad x_1 + x_2 + \frac{1}{x_1} + \frac{1}{x_2} \rightarrow (x_1 + x_2)^2 - 3x_1x_2 = \frac{x_1 + x_2}{x_1x_2}$$

$$1 - (-1) + \frac{1}{1} = 2$$

$$(x_1 + 1)(x_2 + 1) = (x_1 + x_2) + (x_1 + x_2) + \left(\frac{1}{x_1} + \frac{1}{x_2}\right) = -2 + 1 + 2 = 1 = \frac{-2+1}{1}$$

$$y = x - \frac{1}{x}$$

$$(t^2+1)(t^2-1) = 2t \Rightarrow t^2-1 + 1 - \frac{1}{t} = t^2-1 = 2t \Rightarrow t^2-1 = 2t$$

$$t^2 - 2t - 1 = 0 \rightarrow t = \frac{2 \pm \sqrt{4+4}}{2} = 1 \pm \sqrt{2}$$

نکته

