

$$2m^2 + am - 1 = 0 \Rightarrow \Delta = 10 - 14 = -4 < 0 \Rightarrow \Rightarrow 7 \text{ جواب}$$

$$2m^2 - m + 2 = 0 \Rightarrow \Delta = 1 - 16 = -15 < 0 \Rightarrow \Rightarrow X \text{ جواب منفي}$$

$$2m^2 - 2m + 2 = 0 \Rightarrow \Delta = 4 - 16 = -12 < 0 \Rightarrow \Rightarrow 0 \text{ جواب}$$

$$2m^2 - m + 1 = 0 \Rightarrow \Delta = 1 - 8 = -7 < 0 \Rightarrow \Rightarrow X \text{ جواب منفي}$$

$$2m^2 - 2m + a = 0$$

$$\Delta = b^2 - 4ac \Rightarrow 4 - 4a$$

$$1) 4 - 4a > 0 \Rightarrow a < \frac{1}{1}$$

$$\Rightarrow 4 - 4a \geq 0 \Rightarrow a \leq \frac{1}{1}$$

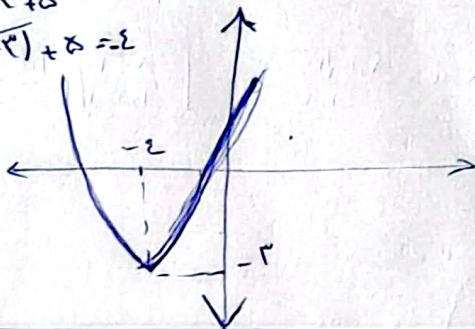
$$2) 4 - 4a = 0 \Rightarrow a = \frac{1}{1}$$

$$3) 4 - 4a < 0 \Rightarrow a > \frac{1}{1}$$

$$y = x^2 + 4x + a$$

$$\text{min} \left| -\frac{4}{2} \right| = -2 \Rightarrow (-2)^2 + 4(-2) + a = -2$$

$$\text{نقطه: } (-2, 0), (-2, -2), (-2, -4), (-2, -6), (-2, -8), \dots$$

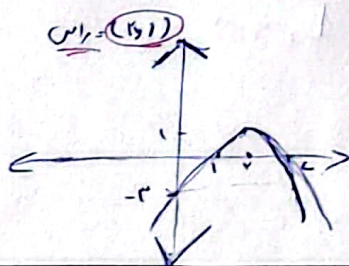


$$y = -x^2 + 2x - 3$$

$$\text{max} \left| \frac{2}{2} \right| = 1$$

$$y_{\text{min}} = \frac{-2}{2(-1)} = 1$$

$$y_{\text{max}} = \frac{4}{4} - 3 = 1 - 3 = -2$$



$$1) y = 0$$

$$-x^2 + 2x - 3 = 0$$

$$x^2 - 2x + 3 = 0$$

$$(x-1)(x-3) = 0$$

$$\Rightarrow x = 1$$

$$\Rightarrow x = 3$$

$$m^2 - 3m - 2 = 0$$

$$a = 1$$

$$b = 3$$

$$c = -2$$

$$1) S^2 - 2P \rightarrow$$

$$S = m_1 + m_2 = -\frac{-3}{1} = 3$$

$$P = m_1 m_2 = \frac{-2}{1} = -2$$

$$\Rightarrow 3^2 - 2(-2) = 9 + 4 = 13$$

$$2) S^2 - 3SP \rightarrow$$

$$3^2 - 3(3)(-2) = 9 + 18 = 27$$