

1 μ

$$\mu = x^2 - 1 = 2x - 2 \Rightarrow \mu = 0 \Rightarrow x = 1$$

$$\mu < 0 \Rightarrow x < 1$$

$$\alpha = \beta \Rightarrow \lambda \in \mathbb{R}$$

$$\lambda \in \mathbb{R}$$

$$\mu \in (-2, 4)$$

$$\mu = -2$$

$$1) \quad | -\sqrt{9x^2 - 18x + 9} < 2$$

$$2) \quad | | < | |$$

$$3) \quad \mu = x, y \quad \frac{1}{4} | | + |y + 2| = 2$$

$$) = 0 \Leftrightarrow 2x - 2 = 0 \Leftrightarrow 2x = 2$$

$$\mu \quad x = \frac{2}{2} = 1$$

$$< 0 \Leftrightarrow x^2 - 1 < 0 \Leftrightarrow x^2 < 1 \Leftrightarrow \sqrt{x^2} < \sqrt{1} \Leftrightarrow |x| < 1 \Leftrightarrow -1 < x < 1$$

$$\mu \quad < 0 \quad (-1, 1), \quad \frac{1}{2} \in (-1, 1) \Leftrightarrow -1 < \frac{1}{2} < 1 \Leftrightarrow -2 < 1 < 2$$

$$\mu \quad -1, 0, 1.$$

$$) > 0 \Leftrightarrow 2x - 2 > 0 \Leftrightarrow 2x > 2 \quad (1)$$

$$- \quad 2 > 0 \Leftrightarrow > 0 \quad (1) \quad : x > \frac{2}{2} = 1$$

$$- \quad 2 < 0 \Leftrightarrow < 0 \quad (1) \quad : x < \frac{2}{2} = 1$$

$$- \quad = 0 \quad (1) \quad 0 > 0$$

$$1) = \Leftrightarrow x^2 - 2x + 2 - 1 = 0$$

$$= (-2)^2 - 4 \cdot 1 \cdot (2 - 1) = 4 - 4 + 4 = 4 > 0. \quad \mu \quad \in \mathbb{R}$$

$$2) \quad : x_1 = \frac{2 + 2}{2} = \frac{4}{2} = 2 \quad x_2 = \frac{2 - 2}{2} = \frac{0}{2} = 0$$

2

$$= \Leftrightarrow x^2 - 2x + 2 = 1 \Leftrightarrow (x - 1)^2 = 1 \Leftrightarrow (x - 1) = 1 \Leftrightarrow x = 2 \quad (x - 1) = -1 \Leftrightarrow x = 0$$

$$3) \quad -2 < x + 2 < 4 \Leftrightarrow -4 < x < 2 \Leftrightarrow x \in (-4, 2) \quad -2 < -2 < 4 \Leftrightarrow 0 < x < 6 \Leftrightarrow x \in (0, 6)$$

$$\mu \quad (0, 2). \quad \in (0, 2)$$

$$) = 2 \quad = 4x - 4$$

$$1) \quad | -\sqrt{9x^2 - 18x + 9} < 2 \Leftrightarrow |4x - 4| - \sqrt{9(x^2 - 2x + 1)} < 2 \Leftrightarrow |4(x - 1)| - 3\sqrt{(x - 1)^2} < 2 \Leftrightarrow$$

$$4|x - 1| - 3|x - 1| < 2 \Leftrightarrow |x - 1| < 2 \Leftrightarrow -2 < x - 1 < 2 \Leftrightarrow -1 < x < 3$$

$$2) \quad |x^2 - 1| < |4x - 4| \Leftrightarrow |(x - 1)(x + 1)| < 4|x - 1| \Leftrightarrow |x - 1||x + 1| - 4|x - 1| < 0 \Leftrightarrow$$

$$|x - 1|(|x + 1| - 4) < 0 \quad (2)$$

$$|x - 1| \geq 0 \quad x \in \mathbb{R}, \quad (2) \quad \mu \quad |x - 1| \neq 0 \Leftrightarrow x \neq 1$$

$$|x + 1| - 4 < 0 \Leftrightarrow |x + 1| < 4 \Leftrightarrow -4 < x + 1 < 4 \Leftrightarrow -5 < x < 3$$

$$3) \quad \frac{1}{4} |x - 1| + |y + 2| = 2 \Leftrightarrow \frac{1}{4} |4(x - 1)| + |y + 2| = 2 \Leftrightarrow \frac{1}{4} \cdot 4|x - 1| + |y + 2| = 2 \Leftrightarrow |x - 1| + |y + 2| = 2 \quad (3)$$

$$x, y \quad \mu, \quad |x - 1| \quad |y + 2| \quad \mu$$

$$(3) \quad :$$

$$\begin{cases} |x-1|=2 \\ |y+2|=0 \end{cases} \quad \begin{cases} |x-1|=1 \\ |y+2|=1 \end{cases} \quad \begin{cases} |x-1|=0 \\ |y+2|=2 \end{cases} .$$

$$\begin{cases} |x-1|=2 \\ |y+2|=0 \end{cases}, \quad \begin{cases} x-1=\pm 2 \Leftrightarrow (x-1=2 \Leftrightarrow x=3) & (x-1=-2 \Leftrightarrow x=-1) \\ y+2=0 \Leftrightarrow y=-2 \end{cases}$$

$$\begin{cases} |x-1|=1 \\ |y+2|=1 \end{cases},$$

$$\begin{cases} x-1=\pm 1 \Leftrightarrow (x-1=1 \Leftrightarrow x=2) & (x-1=-1 \Leftrightarrow x=0) \\ |y+2|=1 \Leftrightarrow y+2=\pm 1 \Leftrightarrow (y+2=1 \Leftrightarrow y=-1) & (y+2=-1 \Leftrightarrow y=-3) \end{cases}$$

$$\begin{cases} |x-1|=0 \\ |y+2|=2 \end{cases}$$

$$\begin{cases} x-1=0 \Leftrightarrow x=1 \\ y+2=\pm 2 \Leftrightarrow (y+2=2 \Leftrightarrow y=0) & (y+2=-2 \Leftrightarrow y=-4) \end{cases}$$

$$\begin{matrix} x=1 & y=0 . \end{matrix}$$

Ασκησόπολις
 ο πιο πλούσιος κόσμος
 θεμάτων και ασκήσεων