

$$D = [3, +\infty)$$

$$a - 2 = 0 \Rightarrow \sqrt{2a + b}$$

$$a = 2$$

$$\begin{aligned} 2 \times 2 + b &= 0 \\ b &= -4 \end{aligned}$$

$$2x^2 + 2x + 1 - m^2 > 0$$

$$(x+1)^2 + 1 - m^2 > 0$$

$$\begin{aligned} \hookrightarrow &= 0 \\ \min & \end{aligned}$$

$$\max - \min \rightarrow 1 - (-1) = 2$$

$$1 - m^2 > 0$$

$$1 > m^2$$

$$\begin{aligned} \max & \rightarrow 1 > m > -1 \\ \min & \end{aligned}$$

$$x - x^2 > 0 \quad x^2 \leq 2 \quad -2 \leq x \leq 2 \rightarrow x \in \{-2, -1, 0, 1, 2\} = A$$

$$[x] + [-x] + 1 \xrightarrow{A \text{ از } x} x - x + 1 = 1$$

$$x_0 = D \in \mathbb{Z} \rightarrow \{-2, -1, 0, 1, 2\}$$

$$x^2(x+3) \geq 0 \quad \begin{array}{c} - \\ + \\ - \\ + \end{array} \quad D = (-\infty, -3] \cup [0, +\infty)$$

$$\begin{aligned} x &= 1 \quad x = -3 \\ \rightarrow \frac{(x^2-1)(x^2-3x^2)}{x^2-1} &\geq 0 \quad \begin{array}{c} - \\ + \\ - \\ + \end{array} \quad D = [-3, -1] \cup [0, 1] \cup (1, +\infty) \end{aligned}$$

$$\begin{aligned} |x-2| - 3 &\geq 0 \quad |x-2| \geq 3 \quad x-2 \geq 3 \rightarrow x \geq 5 \\ x-2 &\leq -3 \rightarrow x \leq -1 \quad D = (-\infty, -1] \cup [5, +\infty) \end{aligned}$$

$$x - |x-2| > 0$$

$$\begin{aligned} |x-2| < x \quad -4 < x-2 < 4 \quad \rightarrow -4 < x < 4 \\ 4 > x &> -2 \end{aligned} \quad D = (-2, 4)$$

$$y = \sqrt{1 - \alpha/\alpha} \quad \alpha|\alpha| \leq 1$$

$$D = [0, 1]$$

$$\textcircled{1} \alpha > 0 \rightarrow \alpha^x \leq 1 \rightarrow -1 \leq \alpha \leq 1 \cap \alpha > 0 \rightarrow \alpha \in [0, 1]$$

$$\textcircled{2} \alpha < 0 \rightarrow -\alpha^x \leq 1 \rightarrow \alpha^x \geq -1 \rightarrow \sqrt[3]{0, 300}$$

$$\sqrt{1 - |\alpha - \alpha|} \neq 1 \rightarrow \begin{matrix} 1 - |\alpha - \alpha| \neq 1 \\ |\alpha - \alpha| \neq 1 \end{matrix} \rightarrow \begin{matrix} 1 - \alpha \neq 1 \\ \alpha - 1 \neq 1 \end{matrix} \rightarrow \begin{matrix} \alpha \neq 0 \\ \alpha \neq 2 \end{matrix}$$

$$1 - |\alpha - \alpha| > 0 \quad 1 - |\alpha - \alpha| \leq 1 \rightarrow -1 \leq \alpha - \alpha \leq 1$$

$$-1 \leq \alpha \leq 1$$

$$\Rightarrow D = [r, r) \cup (r, r) \cup (r, r)$$

$$\cos \alpha \neq 0 \quad \alpha \neq k\pi + \frac{\pi}{2} \quad D = \mathbb{R} - \{k\pi + \frac{\pi}{2}\}$$

$$1 \cos \alpha - 1 \neq 0$$

$$\cos \alpha \neq \frac{1}{r}$$

$$\alpha \neq r k \pi \pm \frac{\pi}{r}$$

$$D = \mathbb{R} - \{r k \pi \pm \frac{\pi}{r}\}$$

$$|r\alpha + 1| - (\alpha + r) \neq 0 \quad (r\alpha + 1)^r - (\alpha + r)^r \neq 0$$

$$(r\alpha + 1 - \alpha - r) (r\alpha + 1 + \alpha + r) \neq 0 \quad (\alpha - r)(r\alpha + 1) \neq 0 \quad D = \mathbb{R} - \{r, -\frac{1}{r}\}$$

$$|r\alpha + 1| - |\alpha + r| > 0$$

$$(r\alpha + 1) - (\alpha + r) > 0 \rightarrow \begin{matrix} (r-1)\alpha > r-1 \\ \alpha > 1 \end{matrix} \quad \begin{matrix} -\frac{1}{r} & r \\ + & + \end{matrix} \quad D = (-\infty, -\frac{1}{r}] \cup [r, +\infty)$$

$$r\alpha - 1 > 1 \quad \alpha > 1 \quad 0 < \log_0(r\alpha - 1) \leq 1 \quad \log_0(r\alpha - 1) \leq 1 \quad r\alpha - 1 \leq r \quad \alpha \leq \frac{r}{r-1}$$

$$D = (1, \frac{r}{r-1}]$$

$$1 \cos \alpha + 1 > 0 \quad \cos \alpha > -\frac{1}{r} \quad (r k \pi - \frac{\pi}{r}, r k \pi + \frac{\pi}{r}) \neq D$$

$$\log(\frac{\alpha-1}{\alpha+1}) > 0 \quad \frac{\alpha-1}{\alpha+1} > 1 \rightarrow \frac{\alpha-1}{\alpha+1} - 1 > 0$$

$$\frac{-r}{\alpha+1} > 0 \rightarrow \alpha+1 < 0 \quad D = (-\infty, -1)$$

$$\alpha < -1$$