

Subject

Date : Year

Month

Day

$$x - a \geq 0 \rightarrow x \geq a$$

درستی برعکس

$$x - a \leq 0 \rightarrow x \leq a$$

$$[-16, 2]$$

$$x \geq -14 \rightarrow 14/2$$

$$y = \sqrt{x-1} \sqrt{1-x} = \sqrt{(x-1)(1-x)} \geq 0 \rightarrow \sqrt{1-x} \geq 0 \rightarrow 1-x \geq 0 \rightarrow x \leq 1$$

$$x \geq \sqrt{1-x} \rightarrow x^2 \geq 1-x \rightarrow x^2 + x - 1 \geq 0 \rightarrow Df = [1, 2]$$

$$y = \sqrt{1-x} \sqrt{x-1} \geq 0 \rightarrow \sqrt{x-1} \geq 0 \rightarrow x-1 \geq 0 \rightarrow x \geq 1$$

$$- \sqrt{x-1} \geq -1 \rightarrow \sqrt{x-1} \leq 1 \rightarrow x-1 \leq 1 \rightarrow x \leq 2 \rightarrow Df = [1, 2]$$

$$y = \sqrt{1-x^2} \rightarrow \sqrt{1-x^2} \geq 0 \rightarrow 1-x^2 \geq 0 \rightarrow x^2 \leq 1 \rightarrow x \in [-1, 1]$$

$$Df = [-1, 1]$$

$$y = \sqrt{1-x^2-9} \rightarrow 1-x^2-9 \geq 0 \rightarrow -x^2-8 \geq 0 \rightarrow x^2 \leq -8$$

$$Df = \emptyset$$

$$y = \sqrt{\frac{|x|+1}{|x|-1}} \rightarrow \frac{|x|+1}{|x|-1} \geq 0 \rightarrow |x|+1 \geq 0 \rightarrow |x| \geq -1$$

$$Df = \mathbb{R} \setminus \{1\}$$

$$y = \sqrt{\frac{\sqrt{x}+1}{\sqrt{x}-1}} \rightarrow \sqrt{x}+1 \geq 0 \rightarrow \sqrt{x} \geq -1 \rightarrow x \geq 0$$

$$Df = [0, +\infty) \setminus \{1\}$$

$$y = \frac{\sqrt{1-x^2}}{|x|+1} \rightarrow \sqrt{1-x^2} \geq 0 \rightarrow 1-x^2 \geq 0 \rightarrow x^2 \leq 1 \rightarrow x \in [-1, 1]$$

$$Df = [-1, 1]$$

$$y = \frac{\sqrt{1-x^2}}{|x|-1} \rightarrow \sqrt{1-x^2} \geq 0 \rightarrow 1-x^2 \geq 0 \rightarrow x^2 \leq 1 \rightarrow x \in [-1, 1]$$

$$Df = (-1, 1) \setminus \{0\}$$

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روز شنبه ۱۳۹۷/۰۵/۰۵

$$y = \frac{x+1}{\sqrt{x+2x}}$$

$$x+1 \geq 0 \quad D_f = \mathbb{R}^+ - \{0\}$$

5

$$y = \frac{1}{\sqrt{x|x|}}$$

(✓)

$$x|x| > 0 \rightarrow D_f = \mathbb{R}^+ - \{0\}$$

5

$$y = \sqrt{1 - [x]}$$

$$1 - [x] \geq 0 \quad 1 \geq [x] \quad x < 1$$

$$D_f = (-\infty, 1)$$

(✓)

6

$$y = \frac{1}{\sqrt{1 - [x]}}$$

$$1 - [x] > 0 \quad 1 > [x] \rightarrow D_f = (-\infty, 1)$$

10

$$y = \frac{1}{x[x]}$$

$$x[x] \neq 0 \rightarrow D_f = \mathbb{R} - \{0\}$$

$$\mathbb{R} - [0, 1)$$

7

$$y = \frac{1}{\sqrt{-x[x]}}$$

$$\sqrt{-x[x]} \geq 0 \quad D_f = \mathbb{Q}$$

15

$$y = \sqrt{\left[x - \frac{1}{p}\right] + \left[x + \frac{p}{p}\right]} \quad \left[x - \frac{1}{p}\right] + \left[x + \frac{p}{p}\right] \geq 0$$

20

$$\left[x + \frac{p}{p} - 1\right] + \left[x + \frac{p}{p}\right] \geq 0 \quad p\left[x + \frac{p}{p}\right] - 1 \geq 0 \quad p\left[x + \frac{p}{p}\right] \geq 1$$

$$y = \sqrt{\left[x - \frac{1}{p}\right] + \left[-x + \frac{1}{p}\right]} \quad \left[x + \frac{p}{p}\right] \geq \frac{1}{p} \rightarrow \left[x + \frac{p}{p}\right] \geq 1$$

$$\left[x\right] \geq \frac{1}{p} \quad D_f = \left[\frac{1}{p}, +\infty\right)$$

← ۱۳۹۷/۰۵/۰۵

$$m \cdot sk\pi + \frac{\pi}{v}\}$$

ج)

میتواند

درستی

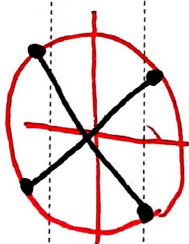
-8

$$\int \left[\left[x - \frac{1}{p} \right] + \left[-x + \frac{1}{p} \right] \right] \rightarrow x - \frac{1}{p} \in \mathbb{Z} \rightarrow x \in \mathbb{Z} + \frac{1}{p}$$

$$Df = \left\{ x \mid x = x + \frac{1}{p} \text{ و } x \in \mathbb{Z} \right\}$$

2 ✓

$$y = \frac{1}{\sin x - 1} = \sin^p x \neq \frac{1}{p} \sin x \neq \sqrt[p]{p}$$

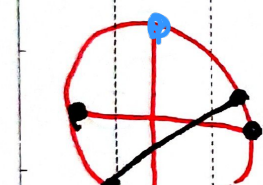


$$R- \left\{ \frac{x}{p} \pm \frac{x}{c} \right\}$$

(117)

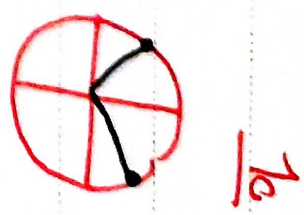
$$y = \frac{\cot x + 1}{\tan x + 1} \quad \tan x + 1 \neq 0 \rightarrow \tan x \neq -1$$

sin x ≠ 0



$$R- \left\{ \frac{x}{p} \pm \frac{x}{c} \right\}$$

$$y = \sqrt{\mu \sin x - 1} \rightarrow \mu \sin x \lesssim 1 \rightarrow \sin x \lesssim \frac{1}{\mu}$$



$$Df = \left[\mu x + \frac{x}{\mu}, \mu x + \frac{ax}{\mu} \right]$$

2 ✓

$$y = \sqrt{1 - \mu \cos x}$$

$$1 \gg \mu \cos x \rightarrow \frac{1}{\mu} \gg \cos x$$



$$Df = \left[\mu x + \frac{x}{\mu}, \mu x + \frac{ax}{\mu} \right]$$

Chil Stars