

1

$y = 2$

$x = 2x^2 - 1 = 0$

$x = (1)^2 = 1$

چون برای برداردی آخری تابع نیست

①

0

2

3

$f(x) = -6, 7, 2$

$(2) (-1, -2] \cup (0, 2) \cup (7, +\infty)$

②

|             |     |     |     |     |     |     |
|-------------|-----|-----|-----|-----|-----|-----|
| $f(x) = -6$ | $-$ | $+$ | $+$ | $+$ | $+$ | $+$ |
| $f(x) = -2$ | $-$ | $+$ | $+$ | $+$ | $+$ | $+$ |
| $f(x) = 7$  | $+$ | $+$ | $+$ | $+$ | $+$ | $+$ |
| $f(x) = 2$  | $+$ | $+$ | $+$ | $+$ | $+$ | $+$ |

فقط حواصی باشد که  $x = 4$  در دایره  $(x-2)^2 = 4$  و  $x = 4$  در دایره  $(x-2)^2 = 4$  نیست  
که به علاوه است آفده نیست

$f = R - \{0, 2\}$

$x = 2x^2 - 1 = 0$

③

$2x^2 - 3x + 2 \rightarrow \Delta < 0$

②

$-2 \quad 0 \quad 2$

$P_f = (-2, 0) \cup (2, +\infty)$

9

10

11

مضامین

$\sqrt{2x^2 - 4x + 8}$

$\Rightarrow P_f = (-\infty, -2) \cup (2, +\infty)$

$-2 \quad 2$

④

①، ⑤

13

14

$2x^2 - 4x + 8 \geq 0 \Rightarrow x \leq -2 \text{ or } x \geq 2$

$D_f = (-2, +\infty) - \{2\}$

15

16

17

18

$\sqrt{x(x^2 - 1)}$

$\Rightarrow -1 \leq x \leq 1$

②

⑤

20

21

$|x| + x$

$\Rightarrow R$

$D_f = [1, +\infty) \cup \{0\}$

①، ⑤

$\Rightarrow D_f = [1, +\infty)$

$|x| + x > 0 \Rightarrow x > 0$

①

Subject:

Date:

$$y = \log_{n+1} \log_n \frac{1}{x}$$

$$x > 0, x \neq 1$$

DND

(0, 1)

$$x+1 > 0$$

$$x-1 \neq 0$$

$$\begin{cases} x > -1 \\ x \neq 0 \end{cases}$$

$$\textcircled{4} \quad \textcircled{1, 2}$$

$$a \leq x^2 - 1 \leq b$$

$$\frac{1}{b} \leq \frac{1}{x^2 - 1} \leq \frac{1}{a}$$

$$-\frac{1}{\sqrt{a}} \leq \frac{1}{x} \leq \frac{1}{\sqrt{a}}$$

$$\textcircled{r}$$

$$\textcircled{10}$$

Subject:

Date:

$$\sqrt{|x-1|-x^2} \quad |x-1| \geq x^2 \quad \begin{cases} x^2 - x + 1 \leq 0 \\ x^2 + x - 2 \leq 0 \end{cases}$$

$$D = [-2, 5] \cup (-1, 1]$$

$$\sqrt{(x-1)(x-2)} \quad x-2 \geq 0 \quad x-1 \geq 0 \quad \begin{cases} x \geq 2 \\ x \geq 1 \end{cases}$$

$$\sqrt{|x-1|(x-2)} \quad 0 \leq x-2 \leq 1 \leq x < 2$$

$$||x-1|-1| - k = 0 \quad ||x-1|-1| = k$$

$$|x-1|-1 = \pm k \quad \rightarrow |x-1| = k+1 \quad x-1 = \pm(k+1)$$

$$\textcircled{1} \quad 1-k > 0 \quad 1 > k \quad \rightarrow \text{جواب}$$

$$\textcircled{2} \quad 1-k = 0 \quad 1 = k \quad \rightarrow \text{جواب}$$

$$\textcircled{3} \quad 1-k < 0 \quad 1 < k \quad \rightarrow \text{جواب}$$

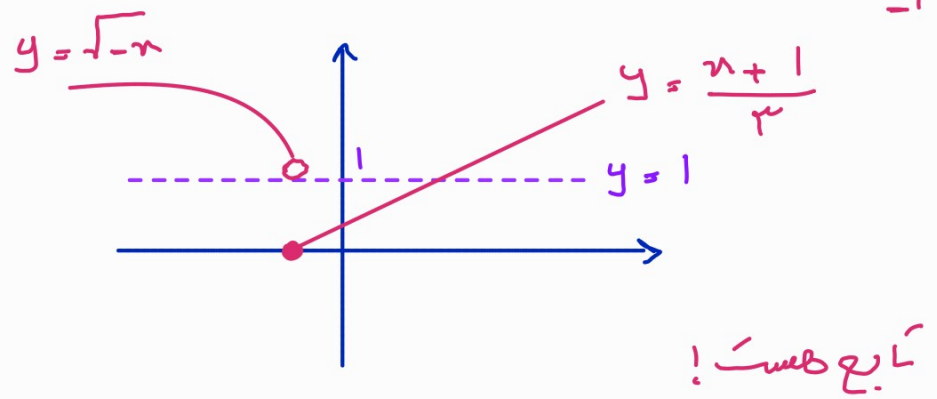
$$x^2 + 4x + 9 \neq 0 \quad -1, -2$$

$$x+1 \neq 0 \quad x \neq -1$$

$$x-1 \neq 0 \quad x \neq 1$$

$$x^2 - 4x + 9 = 0 \quad (x-3)^2 \rightarrow$$

$$y = \begin{cases} \frac{n+1}{n} & y \geq 0 \\ \sqrt{-n} & y > 1 \end{cases}$$



$$1) \quad n+1 > 0 \rightarrow n > -1, \quad n+1 \neq 1 \rightarrow n \neq 0$$

$$2) \quad n > 0, \quad n \neq 1$$

$$3) \quad \lg \frac{1}{n} > 0 \rightarrow 0 < n < 1$$

$$\xrightarrow{n} D_f = (0, 1)$$