

$$2) f(u) = u + \frac{1}{u} + r\sqrt{u + \frac{1}{u}} \rightarrow t + r\sqrt{t}$$

$$N = [r, r\sqrt{r} + 6)$$

$$R \geq r \leftarrow f(u) = \sqrt{u + \frac{1}{u}}$$

$$1) y = (u - \sin u)(1 + \sin u) \Rightarrow \sin u = 1 \rightarrow r \times r = 2$$

$$\sin u = -1 \rightarrow r \times 0 = 0$$

$$N = [0, 2]$$

$$\begin{array}{llll} 1 \rightarrow \frac{r\theta}{r} & r \rightarrow \theta & \omega \rightarrow \frac{r\theta}{r} & v \rightarrow \frac{r\theta}{r} \quad \theta \rightarrow v \\ r \rightarrow \frac{r\theta}{r} & r \rightarrow \frac{r\theta}{r} & \theta \rightarrow \theta & \theta \rightarrow \frac{r\theta}{r} \\ r\theta + r\theta + r\theta + r\theta + r\theta + r\theta & + \theta + \theta + v & = & \checkmark \end{array}$$

$$f(u) = \sqrt{au^r + bu + c}$$

$$rb + c = 0 \rightarrow b = 1, c = -r$$

$$rb + c = 1$$

$$2) a = 0 \rightarrow f(u) = \sqrt{u^r + c} \text{ is a function}$$

$$g(u) = \sqrt{bu^r + au - rc} \rightarrow \sqrt{u^r + 2}$$

$$N = [0, 1]$$

$$N = [r, +\infty)$$

$$f(u) = \frac{u^r - ru}{u + r} \rightarrow u \frac{(u-r)(u+r)}{u+r} \rightarrow u(u-r) \rightarrow ur - ru \rightarrow \text{not a function}$$

$$f = [N - \{a, b\}] \rightarrow a = -r, b = 2$$

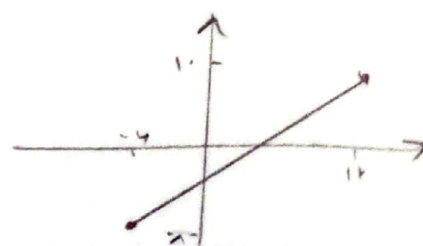
$$N \neq [c, +\infty) - \{1\} \rightarrow c = -1$$

$$f\left(\frac{a+b}{rc}\right) = f(-1) \Rightarrow \checkmark$$

$$y = \sqrt[r]{u^r + au^r + bu - 1} \rightarrow \sqrt[r]{(u-r)^r}$$

$$f = [-r, r], N = [-1, 1]$$

$$f(u) = u - r$$

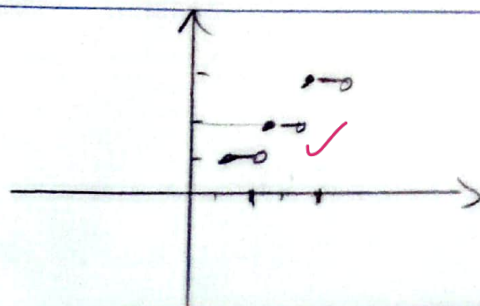


$$1) y = [a] + [u + \frac{1}{r}] \quad (\frac{1}{r}, r)$$

$$[\frac{1}{r} > 1] \rightarrow y = 1$$

$$[1 > \frac{1}{r}] \rightarrow 1 + 1 = r$$

$$[\frac{r}{r} > r] \quad r + 1 = r$$



سپار فضا

۱۸, ۲۵

مقاله: دوازدهم د فتره

۲ ۱

۱) $f(u) = \sqrt{5} \sin^{-1}(u + \frac{\pi}{\sqrt{5}}) - 1$

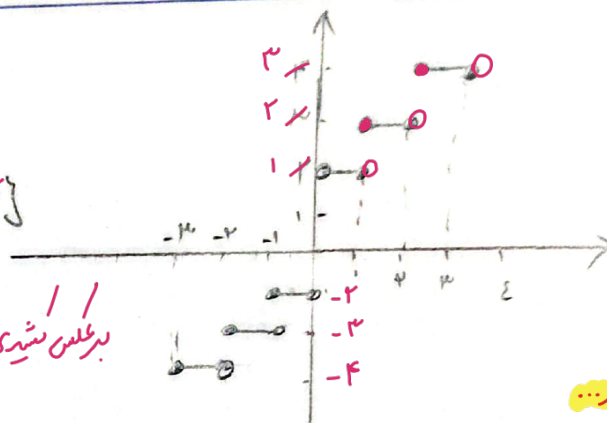
$\sin \rightarrow 1 \rightarrow \sqrt{5} - 1$
 $\rightarrow -1 \rightarrow -1$
 $D = [-1, \sqrt{5} - 1]$

۲) $g(u) = \sqrt{5} \cos^{-1} u - 1$

$\cos \rightarrow -1 \rightarrow -\sqrt{5}$
 $\rightarrow 1 \rightarrow -1$
 $D = [-\sqrt{5} - 1, -1]$

$y = \frac{x}{|x|} + [x]$

$x < 0 \rightarrow -1 + [x]$
 $0 < x < \pi \rightarrow 1 + [x]$



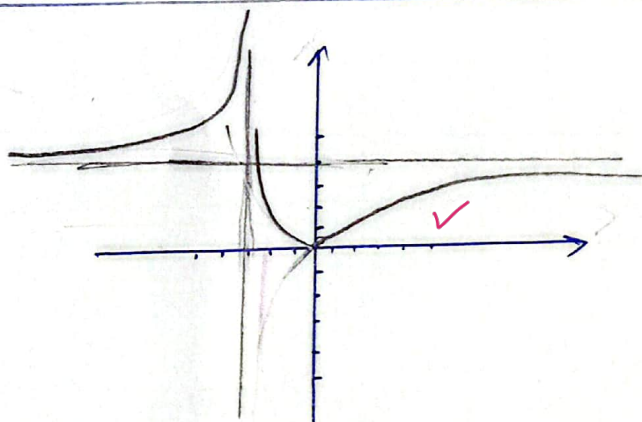
برعکس نشی!

صفحه آخر...

۱ ۲

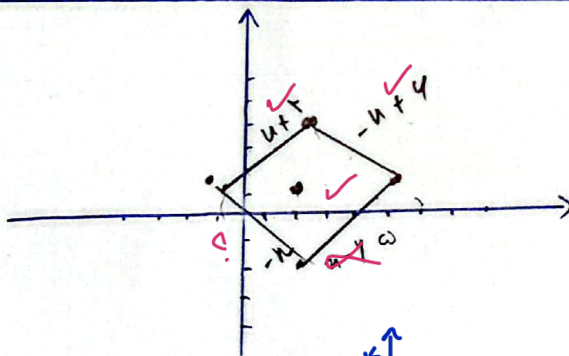
$y = \left| \frac{x+1}{x+3} \right|$

مجاوزه ۳ $\rightarrow$ شبه مرتج $\rightarrow -3$
 مجاوزه ۴ $\rightarrow \frac{0}{4} \rightarrow 0$



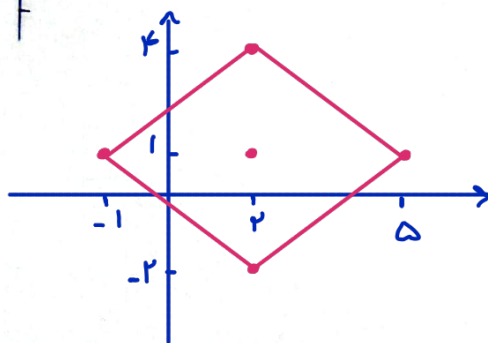
۲ ۳

$|x-2| + |y-1| = 3$



۳ ۴

$\begin{cases} x \geq 2, y \geq 1 \rightarrow y = -x + 4 \\ x \geq 2, y \leq 1 \rightarrow y = x - 4 \\ x \leq 2, y \geq 1 \rightarrow y = x + 2 \\ x \leq 2, y \leq 1 \rightarrow y = -x \end{cases}$



$$y = \begin{cases} [x] + 1 & x > 0 \\ [x] - 1 & x < 0 \end{cases} \Rightarrow$$

