

۱۹، ۷۵

نام و نام خانوادگی: ...  
پاسخنامه تشریحی تکلیف شماره ... کلاس ...  
A

$$a(2x+1)+b+a(x+1)+b=3x+2a+b$$

$$a(2x+1)+b=3x+2a+b$$

$$2ax+a+b=3x+2a \rightarrow 2ax+b=3x+a \xrightarrow{b=0} a=1$$

$$f(x)=x \quad y=\sqrt{x-x^2} \quad S \left| \begin{array}{c} \frac{1}{x} \\ \frac{1}{x} \end{array} \right| \Rightarrow R = \begin{bmatrix} 0 & 1 \\ 1 & 1 \end{bmatrix}$$

$$y = \frac{2(x-1)(x+1)}{x+1} \quad x \neq -1 = a \quad b \quad x^2-2x \neq 1 \quad x \neq 1 \quad x \neq -1$$

$$y = x(x-2) \quad S \left| \begin{array}{c} 1 \\ -1 \end{array} \right| \quad R = \begin{bmatrix} -1 & +\infty \\ -1 & 1 \end{bmatrix} \quad x \neq 1$$

$$C = -\frac{1}{1C} = \frac{1}{-1} = -1 \quad f(-1) = 3$$

$$y = \sqrt{x^2+ax^2+b^2-1} = 8x+0$$

$$\sqrt{(x-2)^2} = \sqrt{x^2-4x^2+12x-1}$$

$$y = x-1$$

$$R_f = \begin{bmatrix} -1 & 10 \end{bmatrix}$$

$$P_f = \begin{bmatrix} -4 & 12 \\ 1 & 10 \end{bmatrix}$$

$$y_1 = \left( \frac{x+1}{1-x} \right)^{\frac{1}{2}} \quad 0 < \frac{x+1}{1-x}$$

$$\frac{-1}{-1+1} = -1 < x < 1 = D_1 = R_1$$

$$y = \frac{ax^2-1}{x^2+b}$$

$$-1 \leq \frac{ax^2-1}{x^2+b} < 1 \Rightarrow \frac{ax^2-1}{x^2+b} < 1$$

چون تابع مقدارهای مثبت و منفی دارد پس دامنه آن تمام است

$b > 0$  زیرا اگر  $b < 0$  پس دامنه آن محدود می باشد

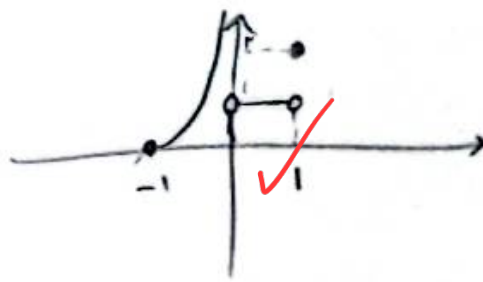
$$\frac{ax^2-1}{x^2+b} = 1 \Rightarrow a=1 \quad \frac{ax^2-1}{x^2+b} = -1 \Rightarrow b=1 \quad a+b=2$$

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

$$-1 < x < 0 \quad \frac{1}{x} - 1$$

$$0 < x < 1 \quad 0 + 1$$

$$x=1 \quad 2$$



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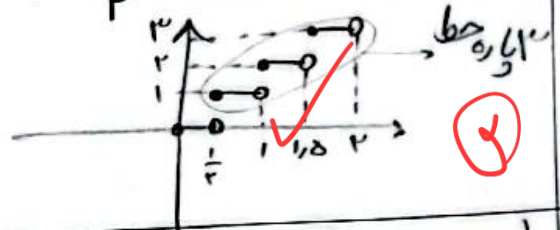
علیرضا شیخوین

$$y = [x] + [x + \frac{1}{2}] = [2x] \quad \text{با دامنه } [\frac{1}{2}, 1)$$

1 → جدول  $\times 2 \rightarrow \frac{1}{2} \rightarrow$  جدول  
 $[x]$  صحیحاً  $[2x]$  صحیحاً

$$1 - \frac{1}{2} = \frac{1}{2} \rightarrow \text{طول بازه}$$

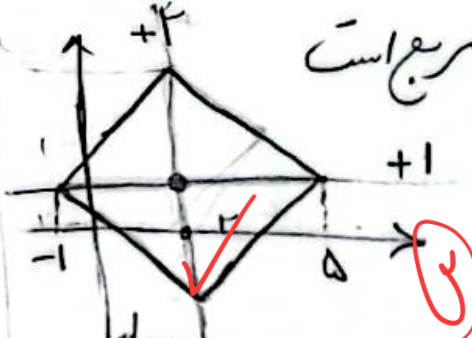
$$\frac{1/2}{1/2} = \boxed{1 \text{ بازه}}$$



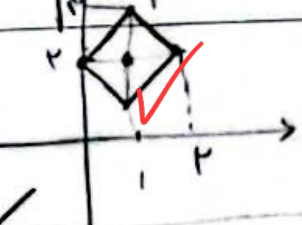
$$\left| \frac{x+1}{ax+c} \right| < 1 \rightarrow \left( \frac{x+1}{ax+c} \right)^2 < 1 \rightarrow \frac{(x+1-a^2x-c)^2}{(ax+c)^2} < 1$$

بافتوجه به این که تابع در  $+\infty$  و  $-\infty$  زیر 1 است  
 $\frac{1}{|a|} \leq 1 \Rightarrow |a| \geq 1$   
 $a \leq -1$  یا  $a \geq 1$   
 $(1-a)x - 2 \leq (1+a)x + c$   
 $-2 \leq 2ax + c$   
 $-2 - c \leq 2ax$   
 $-\frac{2+c}{2a} \leq x$   
 $-\frac{2+c}{2a} \leq -\frac{2}{2a}$   
 $-\frac{2+c}{2a} \leq -\frac{1}{a}$   
 $-\frac{2+c}{2} \leq -1$   
 $-2-c \leq -2$   
 $-c \leq 0$   
 $c \geq 0$   
 $a-b=3$   
 $b=-1$   
 $a=2$   
 $c=0$

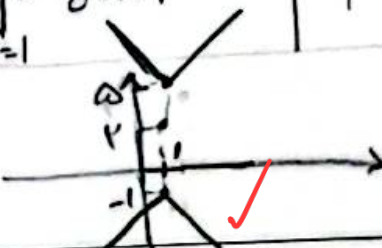
$$\begin{array}{l} -x+2+y-1 \\ =x+2-y+1 \end{array} \quad \begin{array}{l} x-2+y-1=2 \\ y=1 \\ x-2-y+1=2 \end{array}$$



$$|x-1| + |y-1| = 1 \rightarrow |x-1| + |y-1| = 1 \rightarrow |x-1| + |y-1| = 1$$



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



$$\begin{array}{l} a < a \\ a > a \end{array} \quad \begin{array}{l} (x-a)x-b \\ (x+a)x+b \end{array} \quad \begin{array}{l} (x-a)x-b \\ (x+a)x+b \end{array}$$

$$(x-a)(x+a) > 0$$

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