

1A, 20

صالح بن صالح

لازم ہے کہ

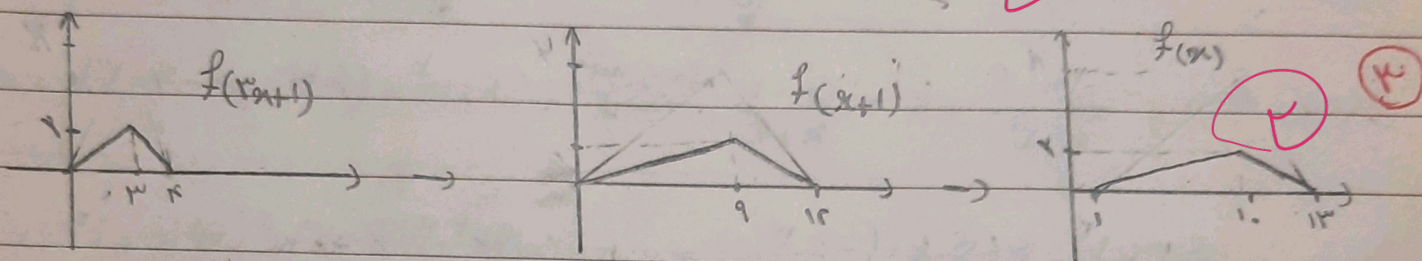
به نام آنکه (ع) ملکوت اوست

$$-\frac{2}{3} \sqrt{\frac{2}{3}} \rightarrow -\frac{2}{3} \sqrt{\frac{2}{3}} \rightarrow -\frac{2}{3} \sqrt{\frac{2}{3}} \rightarrow \frac{0}{f'(x_2)} = \left[ \frac{-\frac{2}{3}}{\frac{2}{3}} \right] \text{ (اقل) } \textcircled{1}$$

صورت سوال را با دقت بخوان

$$-5 \quad \begin{matrix} 2 \\ 1 \end{matrix} \quad \begin{matrix} 1 \\ 1 \end{matrix} \quad \begin{matrix} -5 \\ -5 \end{matrix} \rightarrow \begin{matrix} -11 \\ -11 \end{matrix} \quad \begin{matrix} 1 \\ 1 \end{matrix} \quad \begin{matrix} -5 \\ -5 \end{matrix} \rightarrow \begin{matrix} -11 \\ -11 \end{matrix} \quad \begin{matrix} 1 \\ 1 \end{matrix} \quad \begin{matrix} -5 \\ -5 \end{matrix} \rightarrow D_{f(n)} = \begin{bmatrix} -11 & 1 \\ -11 & 1 \end{bmatrix} \quad [-11, -11]$$

$f(x-r) = (x-r) + \sqrt{(x-r)-r}$  قرینه نسبت  $x = y-r + \sqrt{y-r}$  (۲)  
 $y = y-r + \sqrt{y-r}$  نفا  $y=x$   $y = \sqrt{y-r} \rightarrow y^2 = y-r \rightarrow y = 1$  (۳)



$$g = \frac{v_x}{c} = \frac{1}{\infty}$$

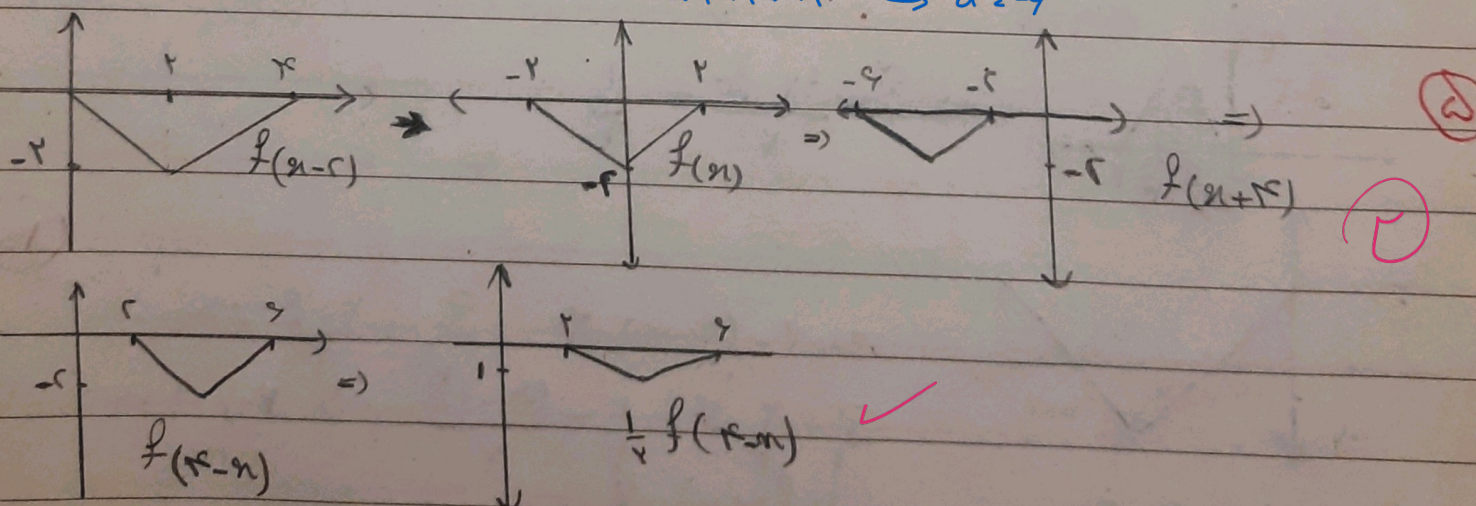
$$\frac{a-a}{r} = 1 \rightarrow y_{A'} = y_A \rightarrow a + \underbrace{r f\left(\frac{a-a}{r}\right)}_{r \rightarrow f(x) = -1} = -1 \rightarrow a - 1 = -1 \rightarrow a = 1 \quad (R)$$

$\downarrow$   
 $x = a + 2$

$$\frac{y-a}{r} = -1 \quad y = a - 1$$

(1,2)

$$y = x - 1 \rightarrow a - 4 = (a + 1) - 1 \rightarrow a = 4$$



داریم:  $f(x) = |x-1| - 2$  و  $f(x) \geq 0 \Rightarrow (x+2) \leq 0 \Rightarrow x \leq -2$

$\rightarrow \frac{-2}{1} + \frac{0}{1} - \frac{1}{1} + \frac{2}{1} = - \rightarrow D_g = [-2, 0] \cup [1, 2]$

$g(x) = |2(x+k) - 3| + 1 - 3 = |2x + 2k - 3| - 2 \xrightarrow{\text{نمایان کنیم}} f(x) = g(x)$

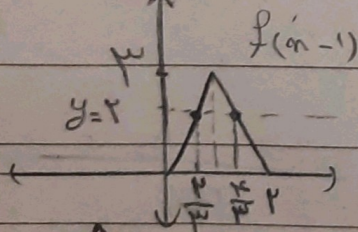
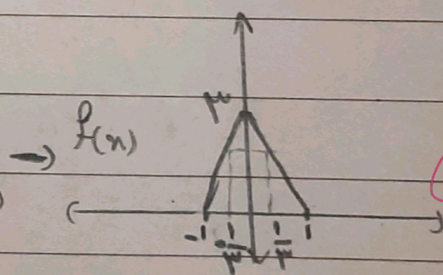
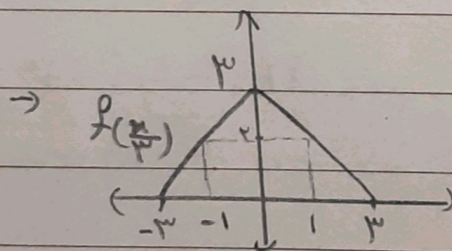
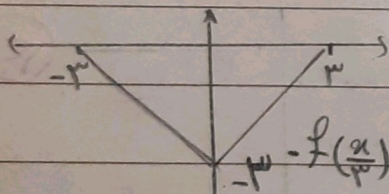
$|2k - 3| - 2 = |-3| + 1 = 2 \Rightarrow |2k - 3| = 4 \Rightarrow 2k - 3 = 4 \Rightarrow k = \frac{7}{2}$   
 و  $2k - 3 = -4 \Rightarrow k = -\frac{1}{2}$  ✓

$\frac{2x-1}{x+1} \xrightarrow{\text{تقسیم}}, \frac{-2x+1}{x+1} \xrightarrow{\text{دوباره ۳}}, \frac{-\frac{2}{3}x+1}{\frac{2}{3}x+1} \xrightarrow{\text{ضرب ۳}}, \frac{-2x+3}{x+1} + k = \frac{-2x+3}{x+1} + k$

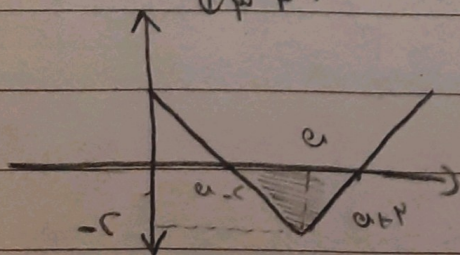
$g(x) = f(x) \Rightarrow \frac{-2x+3}{x+1} + k = \frac{2x-1}{x+1} \xrightarrow{\times (x+1)(x+1)} (3-k)x^2 + (3-3k)x - 9 - 3k = 0$   
 $k = 2$  ✓

$\Delta = 0 \Rightarrow (3-3k)^2 - 4(3-k)(-9-3k) = 0 \Rightarrow 16 + 16k^2 - 32k - 12k^2 + 24k + 99 = 0$   
 $\Rightarrow 4k^2 - 11k + 112 = 0 \Rightarrow k^2 - 11k + 28 = 0$

پایه‌ها را می‌توانیم



$\rightarrow S = \frac{1 \times \frac{2}{3}}{2} = \frac{1}{3}$  ✓



$f(x) = |x-2| - 2$

$a+2 - (a-2) = 4 \Rightarrow S = \frac{1 \times 4}{2} = 2$

$S = \frac{1}{2} \Rightarrow \frac{1}{2} = \frac{(a-2)^2}{2} \Rightarrow (a-2)^2 = 1 \Rightarrow a = 3$   
 $\rightarrow f(\frac{1}{3}) = \frac{2}{3}$  ✓