

۱۵، ۲۵

نام و نام خانوادگی کلاس پاسخنامه تشریحی تکلیف شماره کلاس نام و نام خانوادگی

الف) $f(3x-2)$ و $x=-4 \Rightarrow f(-14)$ (۱)

$\hookrightarrow x=-2 \Rightarrow f(-12)$

$D_f = [-14, -12]$

$D = [-14, -12]$

$-4 \leq 3x-2 \leq 2$

$-2 \leq 3x \leq 4$

$-\frac{2}{3} \leq x \leq \frac{4}{3}$

$D = [-\frac{2}{3}, \frac{4}{3}]$

$3x+1 \xrightarrow{x \mapsto x+1} 3x+4 \xrightarrow{x \mapsto x-1} 3x+3 \xrightarrow{x \mapsto x} 3x$

$A: \xrightarrow{3x+1} A'$

$B: \xrightarrow{3x+1} B'$

$C: \xrightarrow{3x+1} C'$

$\Rightarrow S = \frac{1 \times 5}{2} = 2.5$

$f(x) = x + \sqrt{x-2} \xrightarrow{x \mapsto x+2} x-2 + \sqrt{x-4} = (\sqrt{x-4} + \frac{1}{2})^2 + \frac{1}{4}$

$\xrightarrow{\text{مکمل شود}} y - \frac{1}{4} = (\sqrt{x-4} + \frac{1}{2})^2 \Rightarrow x - \frac{1}{4} = (\sqrt{x-4} + \frac{1}{2})^2$

$y = (\sqrt{x-\frac{1}{4}} - \frac{1}{2})^2 + \frac{1}{4} \Rightarrow \sqrt{x-\frac{1}{4}} = \sqrt{x-4} + \frac{1}{2} \Rightarrow x = 1$

$y = 1$

سوال عرض، اخذ است

$\frac{x-a}{2} = \frac{1}{2} \Rightarrow y = 2k-1 \Rightarrow a + 2n = -4 \Rightarrow a + (-6) = -4$

$a = 2$

$f(x-\frac{a}{2}) = 3 \Rightarrow (p) \Rightarrow g(x) = 2f(\frac{x-a}{2}) + 1$

$\frac{x-a}{2} = 1 \rightarrow x = a+2$

$\frac{y-a}{2} = -3 \rightarrow y = a-6$

$a-6 = 2(a+2)-1$

$a = -6$

$y = f(x+4)$

$y = m f(x-2)$

$\frac{1}{p} f(x-2)$

$$\begin{aligned} 2x-1 &= 0 \Rightarrow x = \frac{1}{2} \\ 2x-1 &= -1 \Rightarrow x = 0 \\ 2x-1 &= 2 \Rightarrow x = \frac{3}{2} \end{aligned}$$



$$D_f = [-2, 0] \cup [1, 2] \quad (2)$$

$$g(x) = f(x) \Rightarrow \{x=0\}$$

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

$$\Rightarrow |1-3+k| =$$

$$|k-3|-2 \Rightarrow \checkmark \Rightarrow \begin{cases} k=9 \\ k=-\frac{5}{2} \end{cases} = f(0)$$

$$g(x) = |2(x+k)-3|-2$$

$$g(\cdot) = |2k-3|-2$$

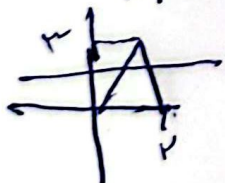
$$g(x) = \frac{-1-\frac{3}{2}x}{-\frac{x}{2}+1} = \frac{2x+3}{x-2} \Rightarrow h(x) = \frac{2x+3+a(x-2)}{x-2} \quad (1.5)$$

$$(x+1)(2x+3+a(x-2)) = (x-2)(2x+3) \Rightarrow 2x^2 + (3+2a)x + 3-2a = 2x^2 + (3-4)x - 6+2a$$

$$+3+2a = 3-4 \Rightarrow 2a = -7 \Rightarrow a = -\frac{7}{2} \quad g(x) = \frac{-2x+3}{x-2} + a = f(x)$$

$$a(x-2) + (3-2a) = -7 \Rightarrow a(x-2) = -10+2a \Rightarrow a(x-2) = -10+2a \Rightarrow a = 0 \Rightarrow x = 0 \quad (a=f) \leftarrow \text{اگر مقادیر 0 و 1 باشد یک به خود دارد}$$

$$y_1 = -f\left(\frac{x}{2}\right) + 2 \rightarrow -f(x) + 2 \rightarrow -f(x) \rightarrow f(x)$$



$$2x=2 \Rightarrow x=\frac{2}{2}$$

$$2-2x=2 \Rightarrow \frac{2}{2}=x$$



$$\frac{f}{2} - \frac{f}{2} = \frac{f}{2} \text{ و } \frac{f}{2}$$

$$g(x)=1 \Rightarrow x = \frac{2x+1}{2} = \frac{1}{2} \quad (2)$$

$$s_1 = \left| \frac{(a-2)(a-2)}{2} \right| = \frac{a^2-4a+4}{2} = \frac{(a-2)^2}{2} \quad \left. \begin{aligned} \frac{(a-2)^2}{2} + 4 &= 9 \\ a^2-4a+4 &= 1 \Rightarrow a=2 \end{aligned} \right\}$$

$$s_2 = \left| \frac{(a-2)(a+2)}{2} \right| = 4 \quad a^2-4a+4=1 \Rightarrow a=2$$

$$f(x) = |x-2|-2 \rightarrow \text{Graph of } f(x) = |x-2|-2$$

$$f\left(\frac{1}{2}\right) = \left|\frac{1}{2}-2\right|-2 = \left|\frac{1}{2}\right| \quad (2)$$