

نام و نام خانوادگی کلاس شماره تکلیف شماره پاسخنامه تشریحی

$$x = -1 \rightarrow 3x(-1) - 2 = -1$$

$$x = -2 \rightarrow 3x(-2) - 2 = -1$$

$$D_f = [-1, -2]$$

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

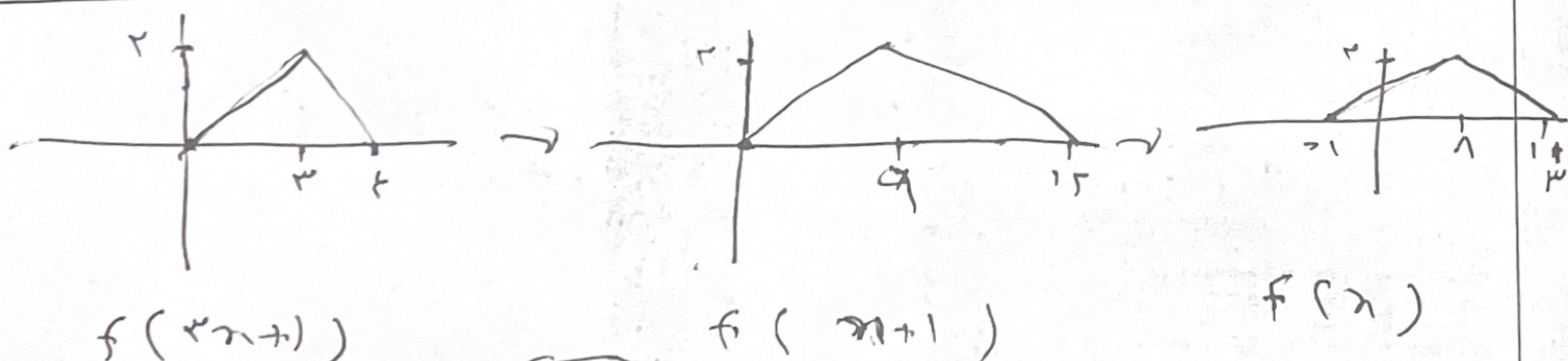
$$-4 \leq 3x \leq 4$$

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

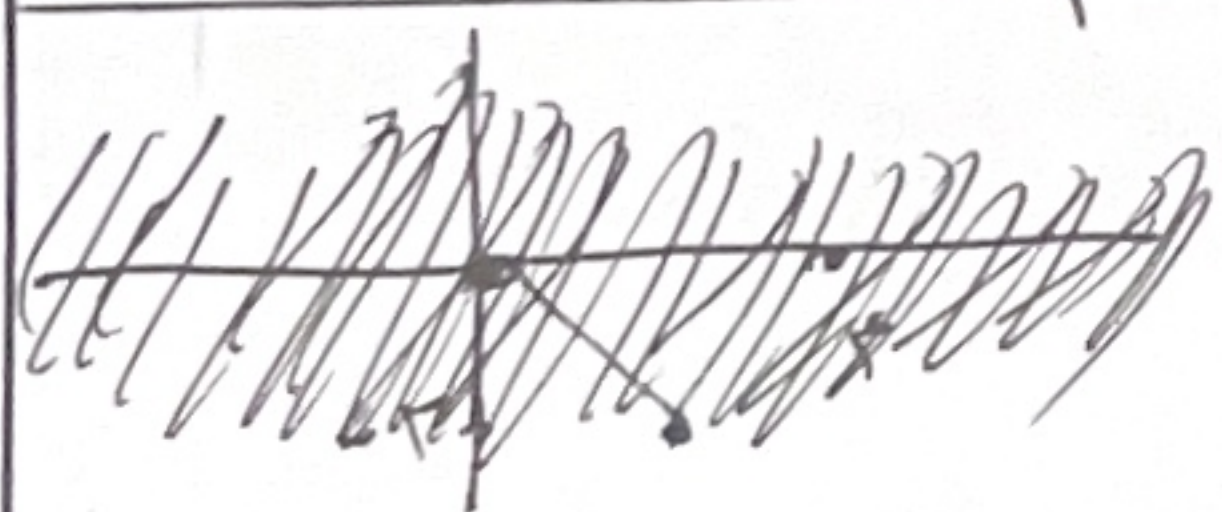
$$x + \sqrt{x-2} \xrightarrow{\text{دو دانه بیاست}} x - 2 + \sqrt{x-2} = y \xrightarrow{\text{تبدیل}} f^{-1}(y)$$

$$\Rightarrow x = y_{f^{-1}(x)} \Rightarrow x - 2 + \sqrt{x-2} = x \Rightarrow \sqrt{x-2} = 2$$

$$\Rightarrow x - 2 = 4 \Rightarrow x = 6 \Rightarrow y_{f^{-1}(x)} = 1$$



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



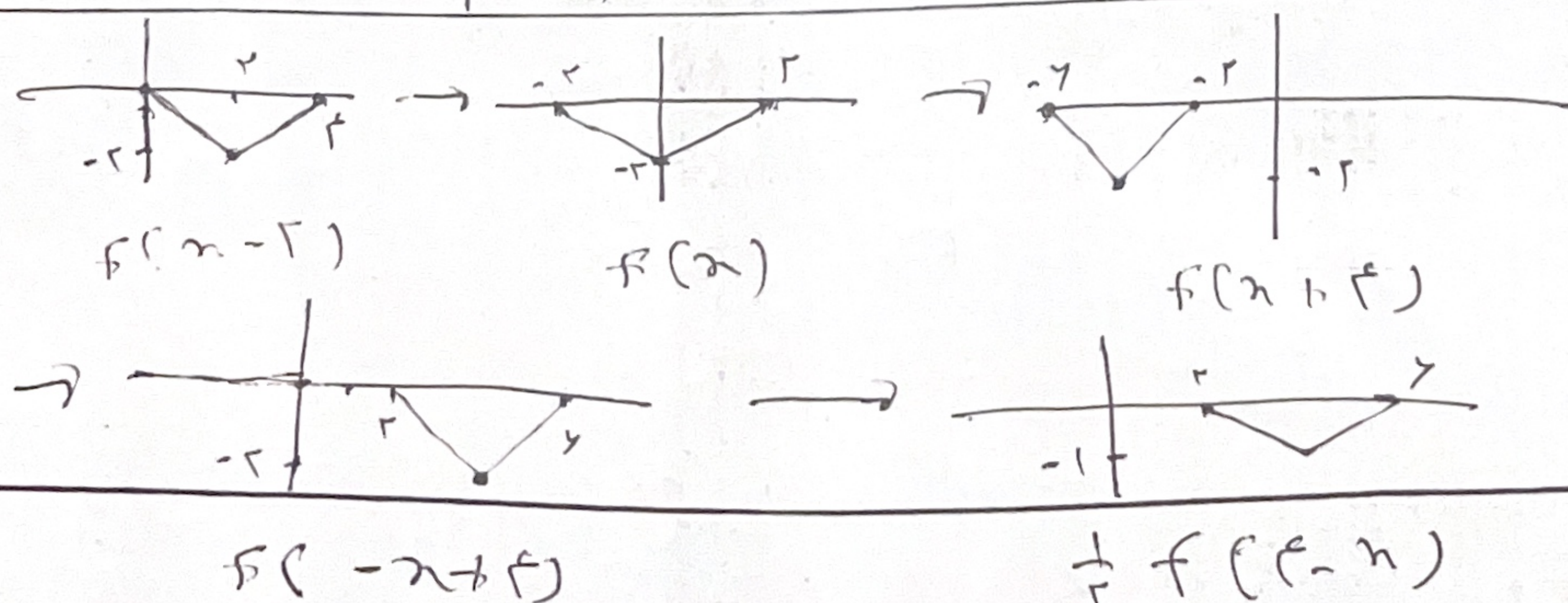
$$\frac{x' - a}{2} = 1 \Rightarrow x' = a + 2$$

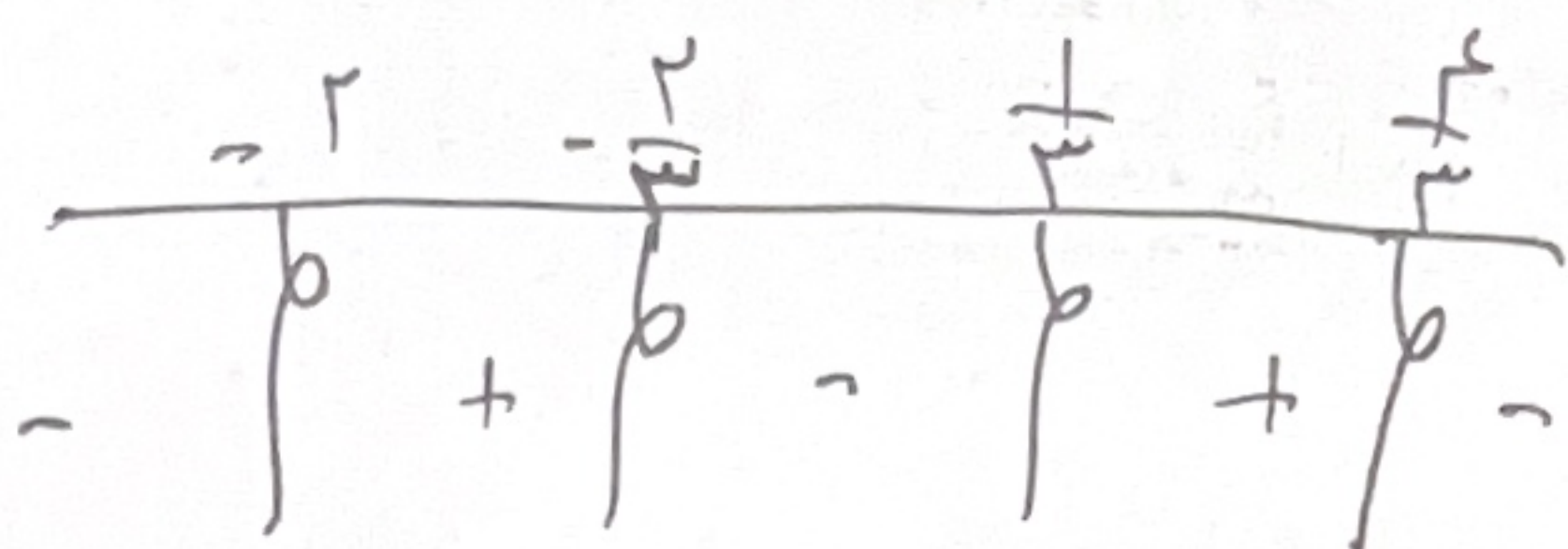
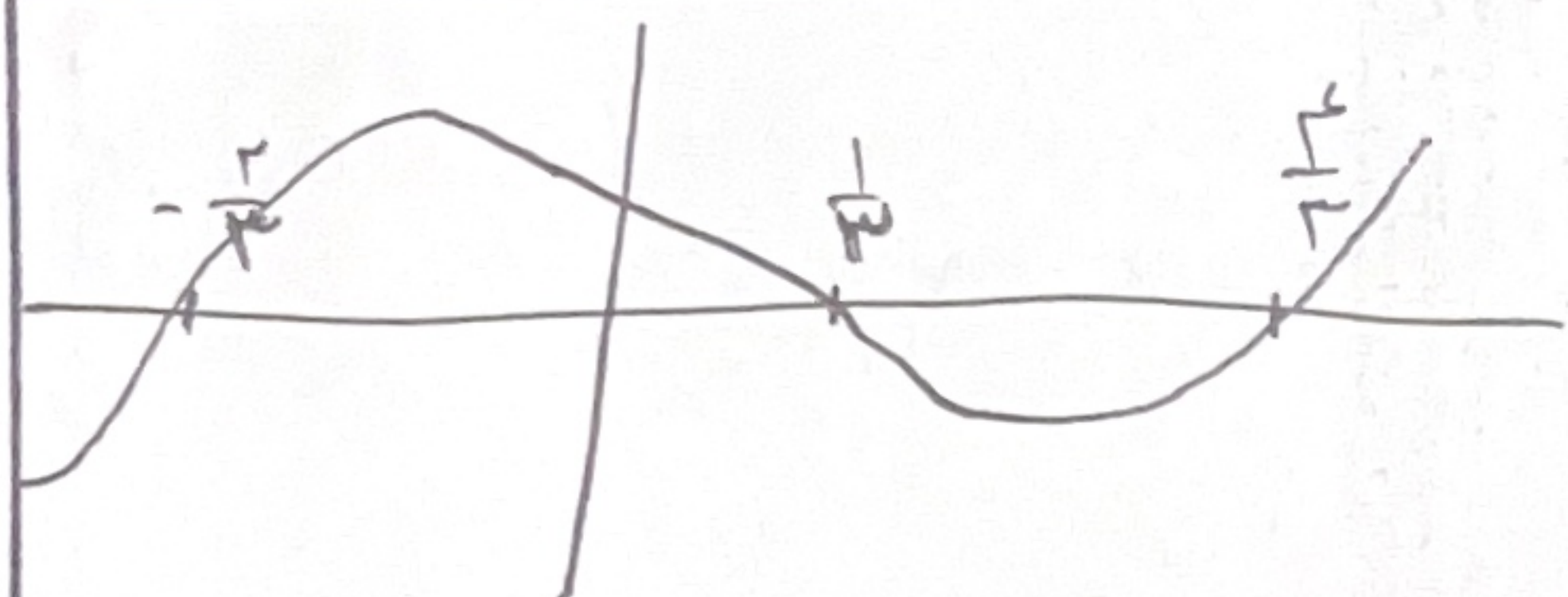


$$y' = a + 2f(x) \neq$$

$$I \cap II : A' \mid \begin{matrix} a+2 \\ a-2 \end{matrix}$$

$$\Rightarrow a-2 = 2a+1-1 \Rightarrow a = -2$$





$$\Rightarrow D_f = [-\frac{1}{2}, \frac{1}{2}] \cup [\frac{1}{2}, 1]$$

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

$$f(x) = 2$$

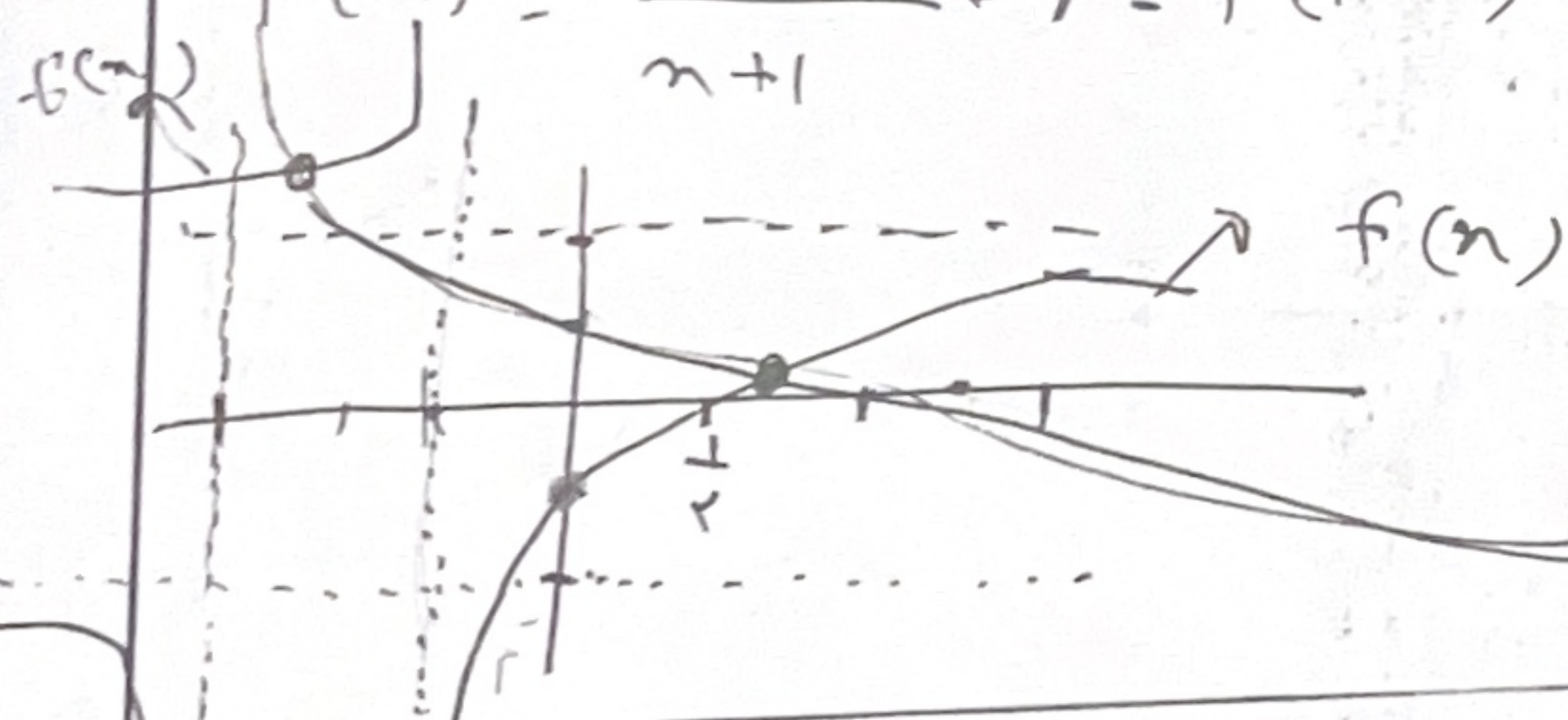
$$g(0) = |2k - 3| - 2 = 2$$

$$2k - 3 = 4 \Rightarrow k = \frac{7}{2} \checkmark$$

$$\Rightarrow |2k - 3| = 4 \Rightarrow$$

$$-2k + 3 = 4 \Rightarrow k = -\frac{1}{2} \text{ or } x$$

$$f(x) = \frac{2x-1}{x+1} \rightarrow -f(x) = \frac{1-2x}{x+1} \rightarrow -f(\frac{x}{2}) = \frac{1-2x}{x+1}$$



جانب $-f(\frac{x}{2})$ با $f(x)$ در $x=1$ و $x=-1$ تقاطع کند

$$f(x)$$



$$-f(\frac{x}{2}) + 2 = |x| - 1$$

$$-f(\frac{x}{2}) = |x| - 3$$

$$f(x) = 3 - |3x|$$

$$f(x-1) = 3 - |3x-3|$$

$$\begin{aligned} 3 - |3x-3| &= 2 \\ -|3x-3| &= -1 \\ |3x-3| &= 1 \\ 3x-3 &= 1 \text{ or } -1 \\ x &= \frac{4}{3} \text{ or } \frac{2}{3} \end{aligned}$$

$$\frac{(\frac{4}{3} - \frac{2}{3}) \times 1}{1} = \frac{2}{3}$$

$$\frac{(a-2)^2}{2} + \frac{1 \times 1}{2} = \frac{9}{2} \Rightarrow (a-2)^2 = 8 \Rightarrow a = \sqrt{8} + 2$$

$$(a-2)^2 = 8 \Rightarrow a-2 = \pm\sqrt{8} \Rightarrow a = \sqrt{8} + 2$$

$$\frac{1}{a} = \frac{1}{\sqrt{8} + 2} \Rightarrow \frac{\sqrt{8}-2}{\sqrt{8}-2} = \frac{\sqrt{8}-2}{8-4} = \frac{\sqrt{8}-2}{4}$$

$$\Rightarrow f(\sqrt{8}-2) = |\sqrt{8}-2 + \sqrt{8}+2| - 2 = 2$$