

نام و نام خانوادگی پاسخنامه تشریحی تکلیف شماره کلاس دوازدهم ریاضی اول

(ب) $D_f(3x-2) \rightarrow [-4, -2]$

$$(f \circ 3)(x) \leq f(x) \leq (f \circ 3)(x) - 2 \Rightarrow -1 \leq f(x) \leq -1$$

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

(الف) $D_f = [-4, 2] \xrightarrow{+2} \div 3$

$$D_f(3x-2) = ? \Rightarrow -\frac{2}{3} \leq f(3x-2) \leq \frac{4}{3}$$

$$D_f(3x-2) = \left[-\frac{2}{3}, \frac{4}{3}\right]$$

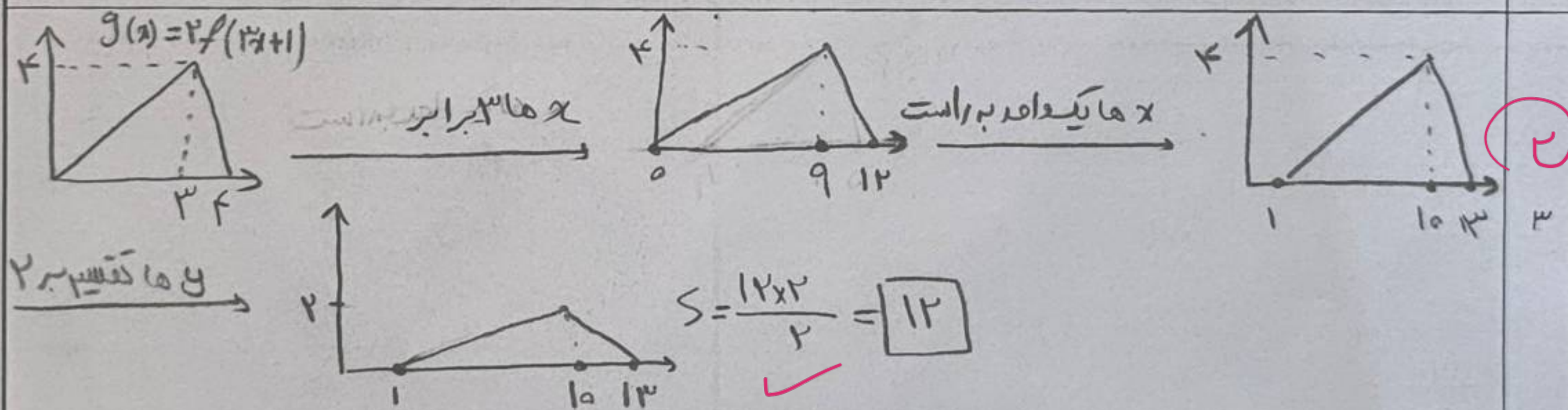
دارون $f(x) = x + \sqrt{x-2}$ دو دایره راست $(-2, 1)$

$$x-2 + \sqrt{x-2} = x \Rightarrow x-2 = x - \sqrt{x-2} \Rightarrow x-2 = 0 \Rightarrow x=2$$

برقرار با $y=x$

$$x = y - 2 + \sqrt{y-2} \Rightarrow y-2 + \sqrt{y-2} = x \Rightarrow y-2 = x - \sqrt{y-2} \Rightarrow y-2 = 0 \Rightarrow y=2$$

$y=2 \Rightarrow y=x$



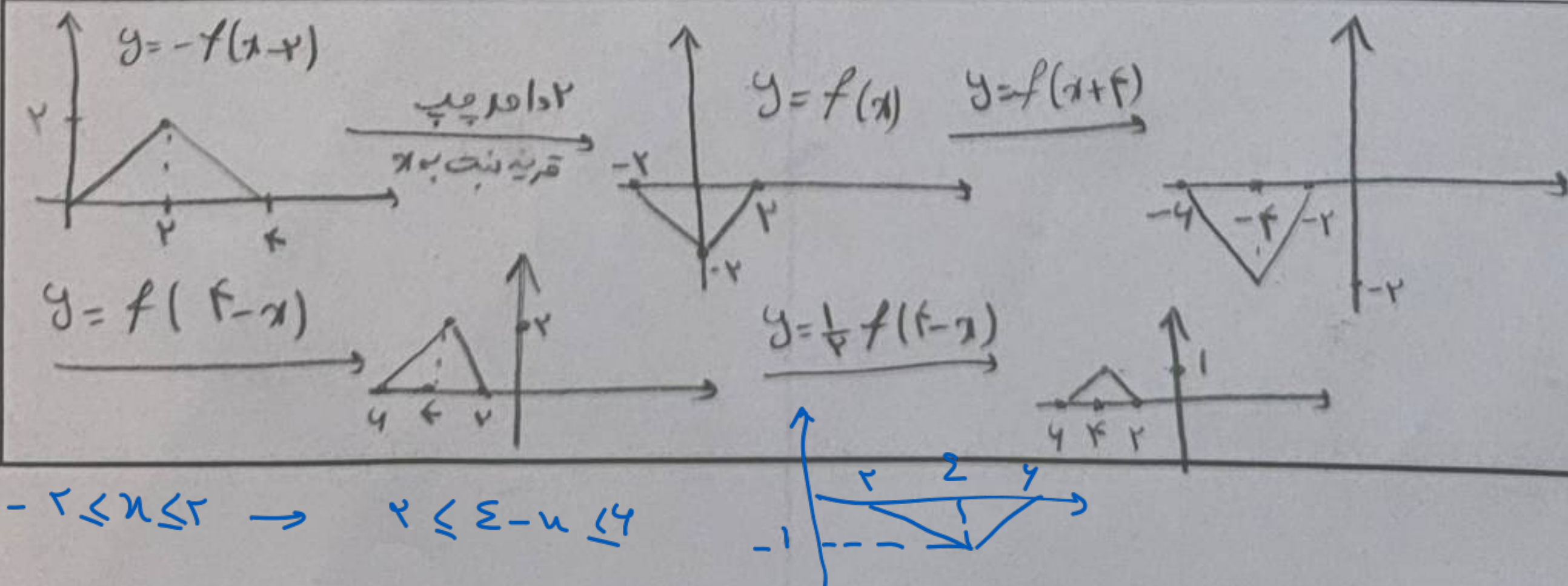
$f(2) = 3$

$$\frac{x-a}{2} = 2 \Rightarrow x = 4+a$$

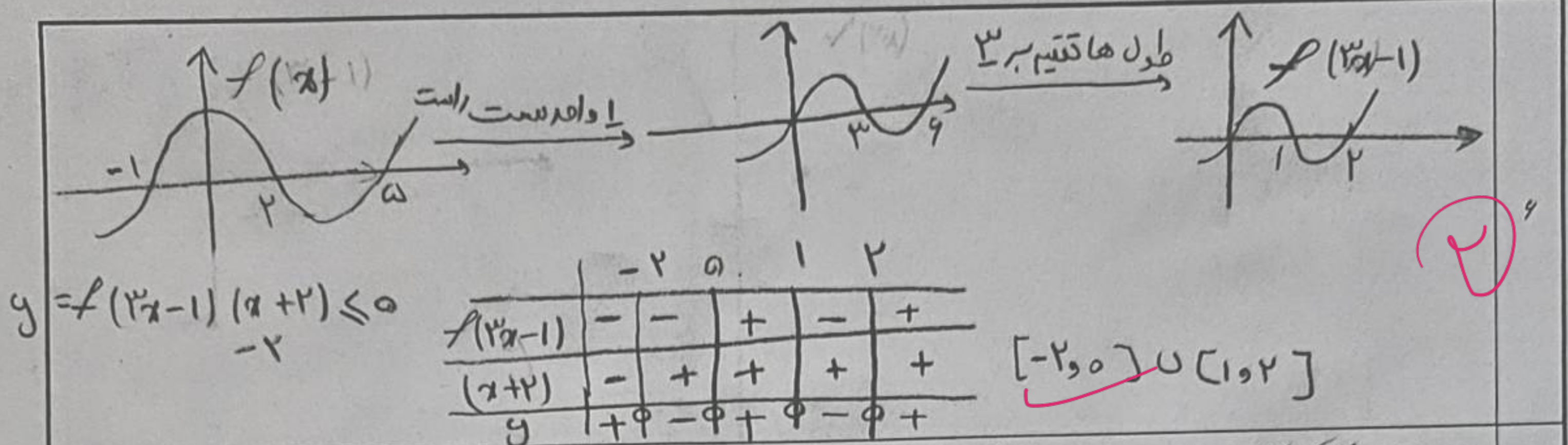
$$y = a+2 \cdot \frac{1}{2} \Rightarrow y = a+1$$

$$y = 2x-1 \Rightarrow a+1 = 2(4+a)-1 \Rightarrow a+1 = 8+2a-1 \Rightarrow a+1 = 7+2a \Rightarrow -6 = a$$

$a = -6$



لیکلی ضابطی



$f(x) = |2x-3|+1$ $\xrightarrow{\text{کدام سمت راست}} |2(x-k)-3|+1-3 = |2(x-k)-3|-2 = g(x)$

$f(0) = |-3|+1 = 4$

$\Rightarrow |2(0-k)-3|-2 = 4 \Rightarrow |-2k-3|-2 = 4 \Rightarrow |-2k-3| = 6$

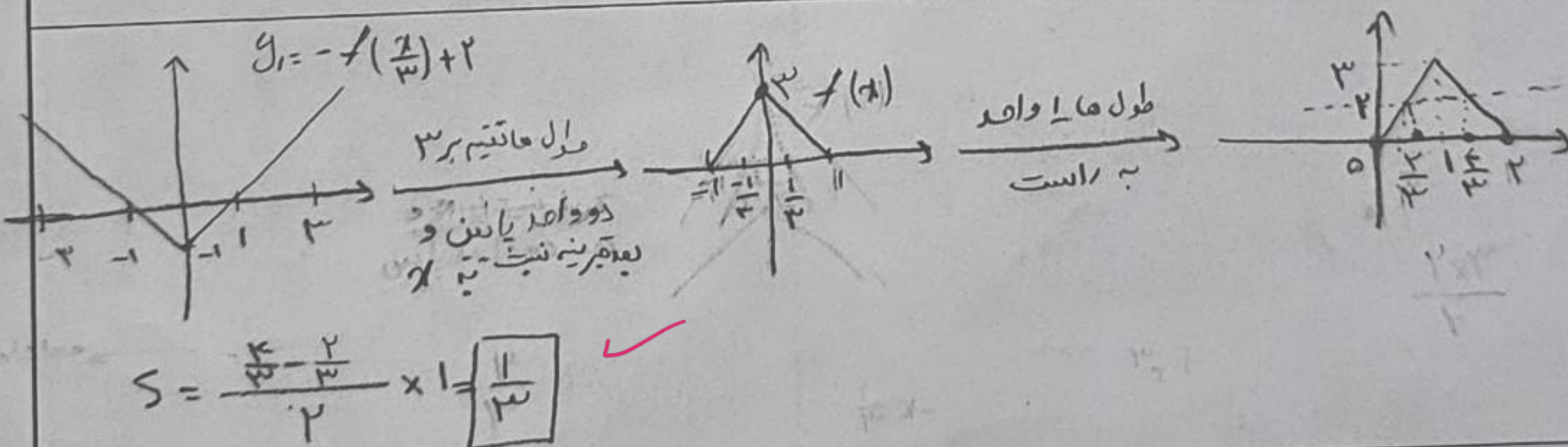
$\begin{cases} -2k-3 = 6 \Rightarrow -2k = 9 \Rightarrow k = -4.5 \\ -2k-3 = -6 \Rightarrow -2k = -3 \Rightarrow k = 1.5 \end{cases}$

$|2k-4| \leq 4 \rightarrow 2k \leq 8 \checkmark$
 $2k \geq -4 \times$

$f(x) = \frac{2x-1}{x+1}$ $\xrightarrow{\text{قرینه نسبت}} \frac{-(2x-1)}{x+1+1} = \frac{1-2x}{x+2}$

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

$(k-2)x^2 + 4x(k-1) + 3k+4 = 0$



$S_1 + S_2 = \frac{(a-2)^2}{2} + \frac{2 \times 2}{2} = \frac{9}{2} \Rightarrow \frac{(a-2)^2}{2} = \frac{1}{2} \Rightarrow (a-2)^2 = 1$

$\Rightarrow a^2 - 4a + 4 = 1 \Rightarrow (a-3)(a-1) = 0$

$\Rightarrow a = 3$

$f(\frac{1}{3}) = |\frac{1}{3} - 3| - 2 = \frac{2}{3}$