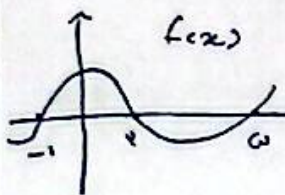


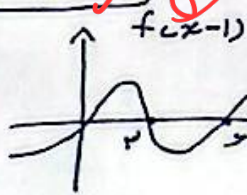
$$-(x+1) \vee f(x^2-1) \geq 0 \rightarrow x-1 \leq (x+1) f(x^2-1) \leq 0$$

$$D_f = [-2, 0] \cup [1, 2] \quad \text{تعیین علامت}$$

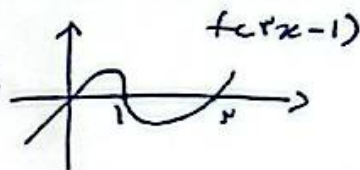
$$\begin{array}{ccccccc} -2 & 0 & 1 & 2 \\ + & - & + & - & + \end{array}$$



اولی
راستی



طول
مابین



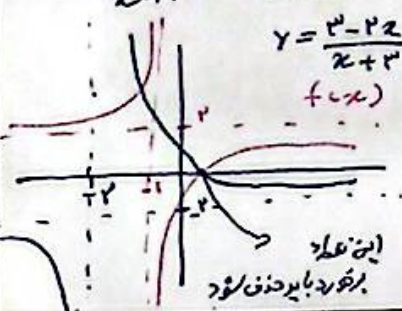
$$|2x-3|+1 \xrightarrow{\text{طول مابین}} |2(x+k)-3|+1 \xrightarrow{\text{اولی}} |2(x+k)-3|-2 = g(x)$$

حل
برخورد
روی
محدوده

$$k = 4/5$$

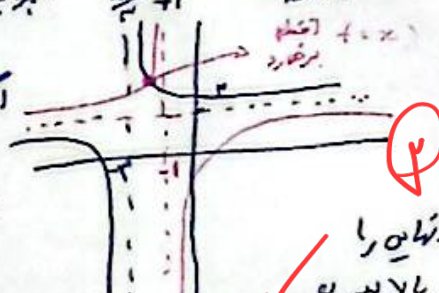
$$\begin{aligned} 2k-3 &= 4 \rightarrow 2k = 7 \rightarrow k = 7/2 \\ 2k-3 &= -4 \rightarrow 2k = -1 \rightarrow k = -1/2 \end{aligned}$$

$$f(x) = \frac{2x-1}{x+1} \xrightarrow{\text{تقسیم}} \frac{2x-1}{x+1} = \frac{1-2x}{x+1} \xrightarrow{\text{طول مابین}} \frac{1-2x}{x+1} = \frac{3-2x}{x+2}$$

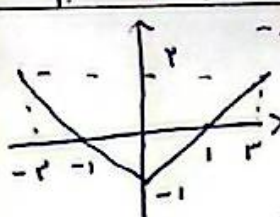


آنگاه
بار
مشتق
را
نقشه
کشید

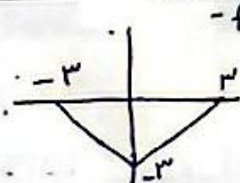
آنگاه
نقشه
را
نقشه
کشید



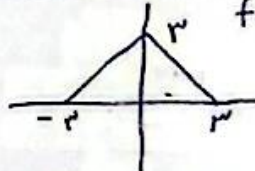
باید
نقشه
را
نقشه
کشید



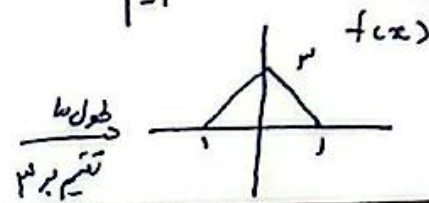
$$-f(x_p) + 2$$



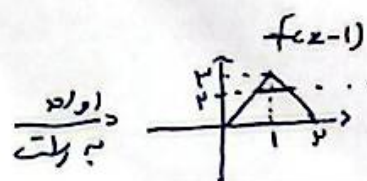
$$-f(x_p)$$



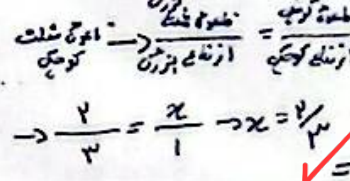
$$f(x_p)$$



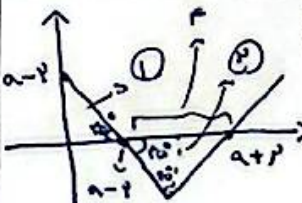
$$f(x)$$



$$f(x-1)$$



$$f(x-1)$$



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

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

$$S_1 = \frac{(a-2)(a-1)}{1} = \frac{a^2-3a+2}{1}$$

$$S_2 = \frac{f(x) \cdot f(x-1)}{1} = \frac{1}{1}$$

$$S_1 + S_2 = \frac{1}{1} \rightarrow \frac{a^2-3a+2}{1} + \frac{1}{1} = \frac{1}{1}$$

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

$$\rightarrow a=1$$

$$a=2$$

$$a=3$$

$$f(x) = |x-3|-2$$

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