

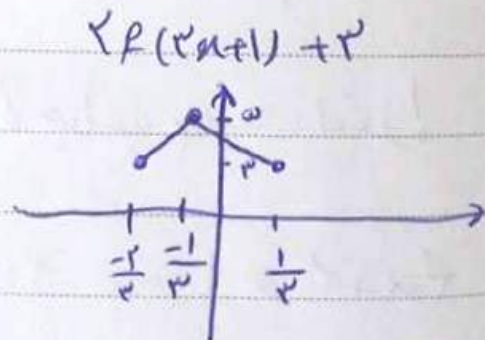
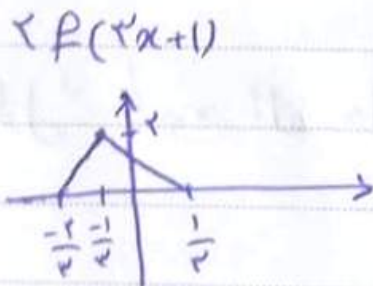
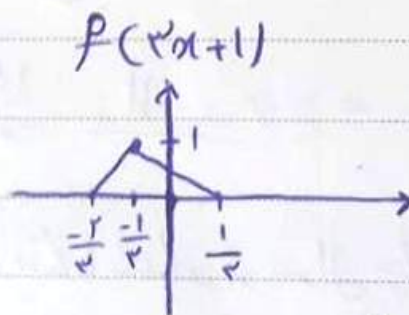
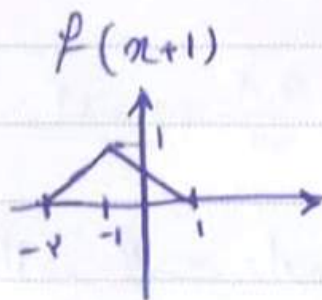
$$-2 \leq \frac{3x+2}{5} \leq 4 \quad \frac{\omega(-2)-2}{2} \leq x \leq \frac{\omega(4)-2}{2}$$

$$x \in [-4, 4]$$

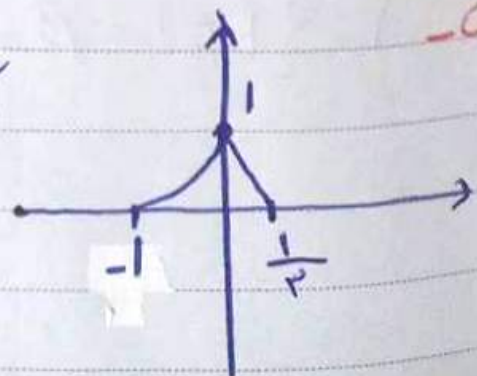
$$3([-2, 2]) - 2 = [-8, 7]$$

$$-1 \leq \frac{3x+1}{2} < 2 \Leftrightarrow -1 \leq x < \frac{3}{2}$$

$$2 - \omega([-1, \frac{3}{2}]) = (-\frac{1}{2}, 7]$$



دیکھ سوال ۴ رو مرحلہ بہ مرحلہ تو شتم متوجہ شوی
یادگرفتم، اینو لقمہ بہ صترپ یکشم



$$\frac{-b}{2a} = \frac{-\frac{2}{5}}{\frac{2}{5}} = \frac{2}{5} \Rightarrow \epsilon \quad f(x) \rightarrow f\left(\frac{x+1}{5}\right)$$

$$\frac{1}{3} \times \frac{9}{25} + \frac{2}{25} + 1 = \frac{28}{25} \Rightarrow 3 \quad f\left(\frac{x+1}{5}\right) \rightarrow f\left(\frac{x+1}{5}\right) + \frac{28}{25}$$

$$-\frac{1}{3}x^2 + \frac{2}{5}x + 1 = \frac{28}{25} \Rightarrow -\frac{1}{3}x^2 + \frac{2}{5}x + \frac{27}{25} = 0$$

حالا مثل اینکه روش دلتاش با a فرق نمی‌کرد
صورت دلتا می‌زنیم

$$\frac{-\frac{2}{5} \pm \sqrt{\frac{4}{25} + \frac{27}{25}}}{-\frac{2}{3}} \Rightarrow \frac{-\frac{2}{5} \pm \sqrt{\frac{31}{25}}}{-\frac{2}{3}}$$

$$\frac{-12}{5} = \frac{x-1}{5} \Rightarrow x = -11 \quad \frac{11}{5} = \frac{x-1}{5} \Rightarrow x = 19$$

حالا دو حالت داره. یا شما اشتباه تو سوال چایی کدام طول ها "نویسید"

"کدام طول" یا می‌غلط حل کردم که دوتا جواب بدست اومد!

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

$$1 - 2(\epsilon) \leq \beta \leq -7$$

$$-\frac{1}{3}x - 7 \leq \frac{7}{3}$$

$$D_{f(x-1)} = (a+1, 0] \quad a+1 \leq -2 \quad a \leq -3$$

-1

$$b-1 = 0 \quad b = 1$$

$$D_{g(x+1)} = [-2, b-1] \quad -2 - 1 = -3$$

$$R_f \leq R_{f(x+1)} = [-1, 2]$$

-9

$$2([-1, 2]) - 2 \leq [-2, 1] \Rightarrow |[-2, 1]| = [0, 2] = R'$$

$$D_{f(x+1)} = [-2, 0] \quad \frac{[-2, 0]}{2} + 1 = \left[-\frac{1}{2}, \frac{1}{2}\right] = D_f$$

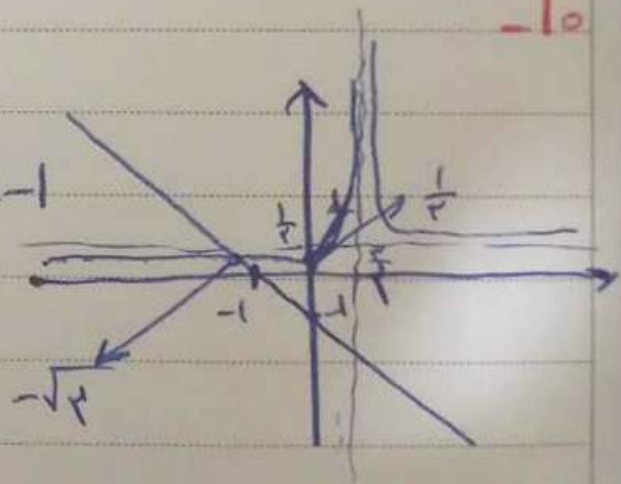
چون تو قدر حلقه دیگر نیاز نیست حسابی داخله رو دادیم بدیم

$$g(x) = \left| \frac{x-1}{2x-2} \right| + 1$$

-10

$$x + g(x) < 0 \rightarrow \left| \frac{x-1}{2x-2} \right| < -x-1$$

$$\frac{x-1}{2x-2} \leq -x-1$$



$$1-x \leq (2x^2 - x - 2) \Rightarrow 2x^2 \geq 3 \Rightarrow x \geq \pm\sqrt{3}$$

$$(-\infty, -\sqrt{2}) \Leftarrow x \leq -\sqrt{2} < 0 \quad x < -1$$