

شماره ۲۰

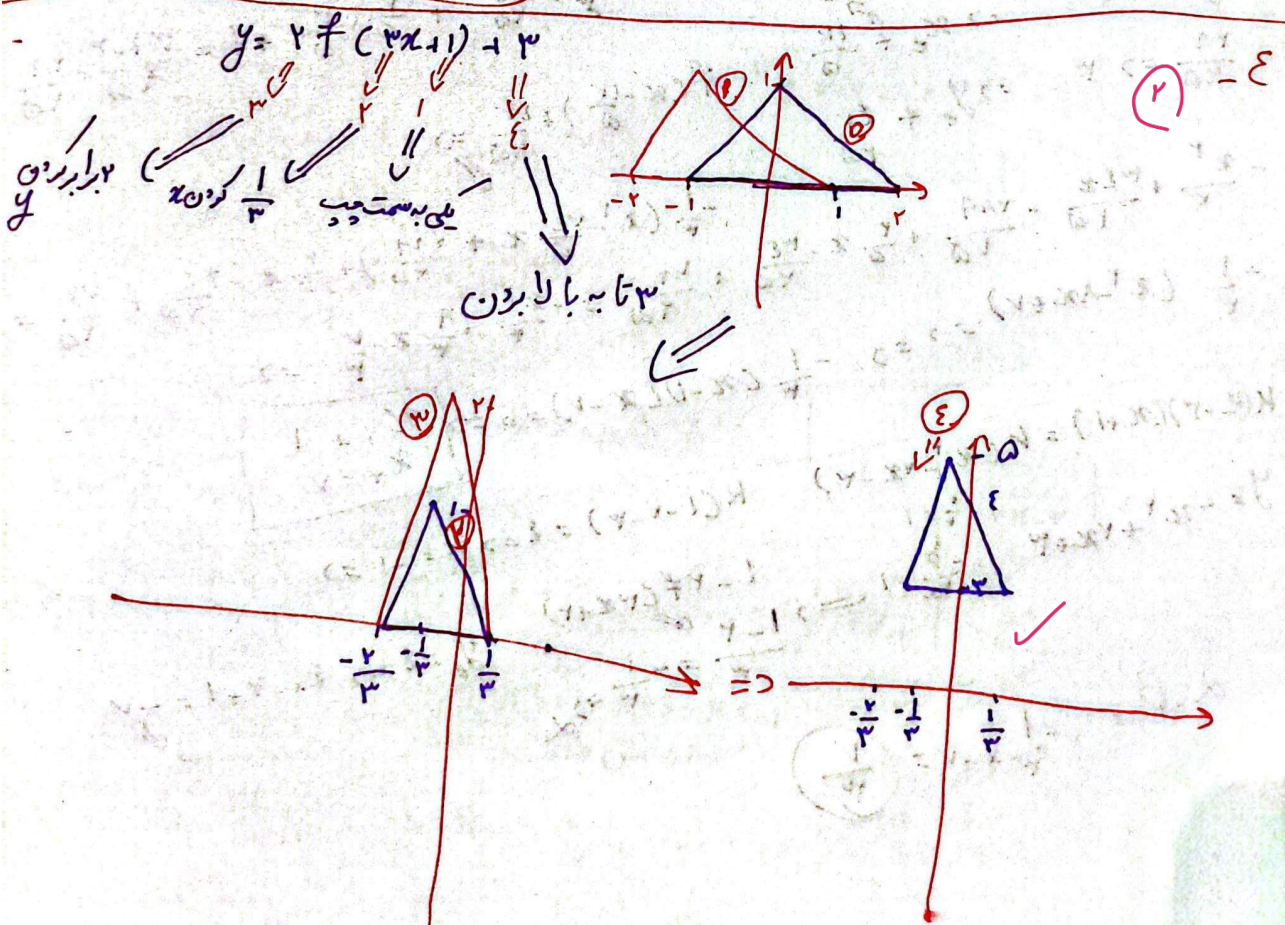
$$\frac{wx+y}{a} \Rightarrow \frac{ax-y}{3} \xrightarrow{\varepsilon} \frac{y-y}{3} = 0 \quad \xrightarrow{-1 \cdot y} \frac{-1 \cdot y}{3} = -\varepsilon \Rightarrow D_f = [-\varepsilon, \varepsilon] \quad (2) - 1$$

$$f(x) \xrightarrow{[-r, r]} f(x) \Rightarrow \begin{aligned} -r \times 3 - r &= -1 \\ 3 \times r - r &= 1 \end{aligned} \Rightarrow D_f = [-1, 1] \quad (2) - 2$$

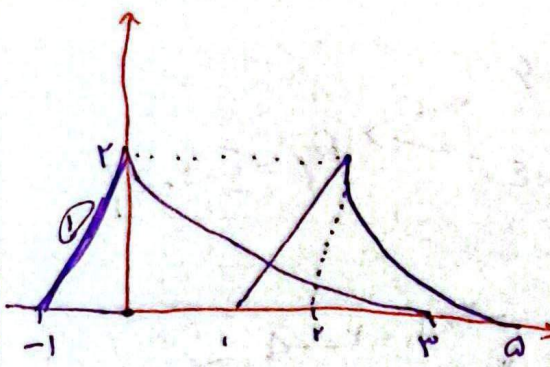
$$[1, 2) \xrightarrow{x+1} \frac{x+1}{2} \Rightarrow \begin{aligned} \frac{-r+1}{2} &= -1 \\ \frac{q+1}{2} &= 2 \end{aligned} \Rightarrow D_{f \circ g} = [-1, 2) \quad (2) - 3$$

$$-1 \leq 2 - ax < 2 \Rightarrow -2 \leq -ax < 0 \Rightarrow \frac{x}{a} \geq x > -\frac{r}{a} \Rightarrow$$

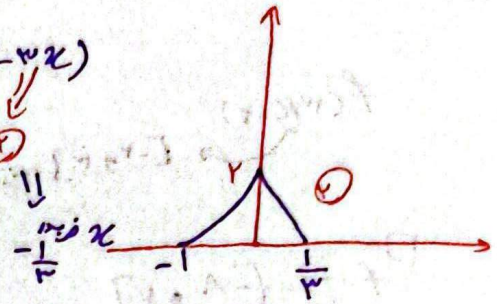
$$D_f = \left(-\frac{r}{a}, \frac{r}{a}\right]$$



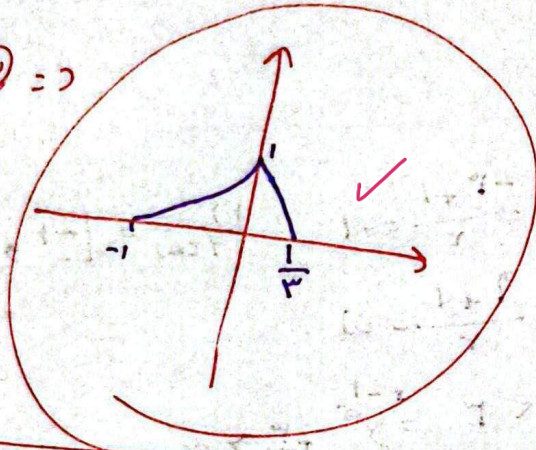
(r) - a



$$y = \frac{1}{x} f(r-wx)$$



(w) =>



$$x_e = -\frac{b}{r_a} = -\frac{-r}{\frac{r}{a}} = \frac{r}{a} \Rightarrow y_e = -\frac{1}{x} \cdot \frac{r}{a} = -\frac{r}{a} \cdot \frac{a}{r} = -1$$

$$\frac{r}{a} \Rightarrow \varepsilon \Rightarrow x_e + \frac{1}{a} = \frac{r}{a} \Rightarrow x_e = \frac{r}{a} - \frac{1}{a}$$

$$\frac{r}{a} \Rightarrow w \Rightarrow y_e + \frac{\varepsilon r}{r_a} = \frac{r}{a} \Rightarrow y_e = \frac{r}{a} - \frac{\varepsilon r}{r_a}$$

$$-\frac{x^r}{w} + \frac{w \varepsilon x}{1/a} - \frac{r \wedge q}{v/a} + \frac{r}{a} x - \frac{w \varepsilon}{r/a} + \frac{v r}{r/a} = -\frac{x^r}{w} + \frac{1}{r} x - \frac{v}{w} \Rightarrow$$

$$-\frac{1}{r} (x^r - \wedge x + v) \Rightarrow -\frac{1}{r} (x-1)(x-v) = 0 \Rightarrow \boxed{x_1 = 1, x_r = v}$$

$$K(x-r)(x+1) = K(x^r - vx - v) \quad K(1-r-v) = \varepsilon \Rightarrow K = -1 \Rightarrow$$

$$y = -x^r + vx + v \quad \frac{1}{a} = 1 \Rightarrow \frac{1-r}{r} = -\frac{1}{r} \Rightarrow \alpha$$

$$y_e = \varepsilon \Rightarrow \varepsilon x - r + 1 = \frac{v}{r}$$

$$\alpha \cdot \beta = -\frac{1}{r} x - v = \left( \frac{v}{r} \right)$$

مجموعه مساوی است پس همان نیست

$$[a, \varepsilon]$$

$$a < x_{n+1} \leq \varepsilon \Rightarrow a_{n+1} < x \leq \omega$$

$$a_{n+1} = -2 \Rightarrow a = -4$$

$$[-1, b) \Rightarrow -1 \leq x_{n+1} < b = -2 \leq x < (b-1)$$

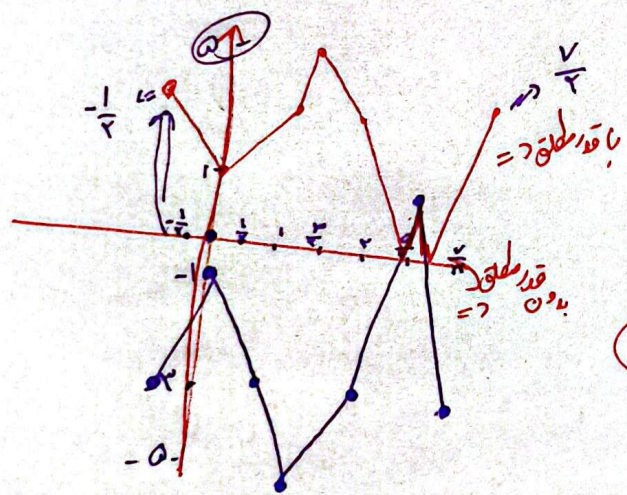
چون مساوی است

$$b-1 = \omega \Rightarrow b = 4$$

$$a - b = -4 - 4 = -8$$

۹- نقطه‌ی صمیم

$$\begin{aligned} f(-\frac{3}{4} + 1) = 0 &\Rightarrow f(-\frac{1}{4}) = 0 \Rightarrow 2f(-\frac{1}{4}) - 3 = -3 \\ f(-\frac{1}{4} + 1) = 1 &\Rightarrow f(\frac{3}{4}) = 1 \Rightarrow 2f(\frac{3}{4}) - 3 = -1 \\ f(-\frac{1}{4} + 1) = 0 &\Rightarrow f(\frac{1}{4}) = 0 \Rightarrow 2f(\frac{1}{4}) - 3 = -3 \\ f(1) = -1 &\Rightarrow 2f(1) - 3 = -5 \\ f(\frac{5}{4}) = 2 &\Rightarrow 2f(\frac{5}{4}) - 3 = 1 \\ f(\frac{3}{4}) = 0 &\Rightarrow 2f(\frac{3}{4}) - 3 = -3 \end{aligned}$$



$$D_f = [-\frac{1}{4}, \frac{5}{4}]$$

$$R_f = \sqrt{[0, \omega]} \Rightarrow$$

$$R_f = [0, \sqrt{\omega}]$$

۲ واحد برابر است  $\Rightarrow x-2$   
یک واحد برابر است  $\Rightarrow +1$

$$g(x) = \left| \frac{x-2+1}{2x-4+1} \right| + 1 = \left| \frac{x-1}{2x-3} \right| + 1$$

$$x + g(x) < 0 \Rightarrow x + 1 + \left| \frac{x-1}{2x-3} \right| < 0 \Rightarrow \left| \frac{x-1}{2x-3} \right| < -x-1$$

$$-1-x > 0 \Rightarrow x < -1$$

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

$$(-\infty, -\sqrt{2})$$