

$$.) \quad \frac{\sqrt{x}}{x} + \frac{\sqrt{x}}{x} - x \cdot \frac{\sqrt{x}}{x} = \frac{\omega \sqrt{x}}{x} \quad (2)$$

μ

$$f(1) = 1 + f = \omega$$

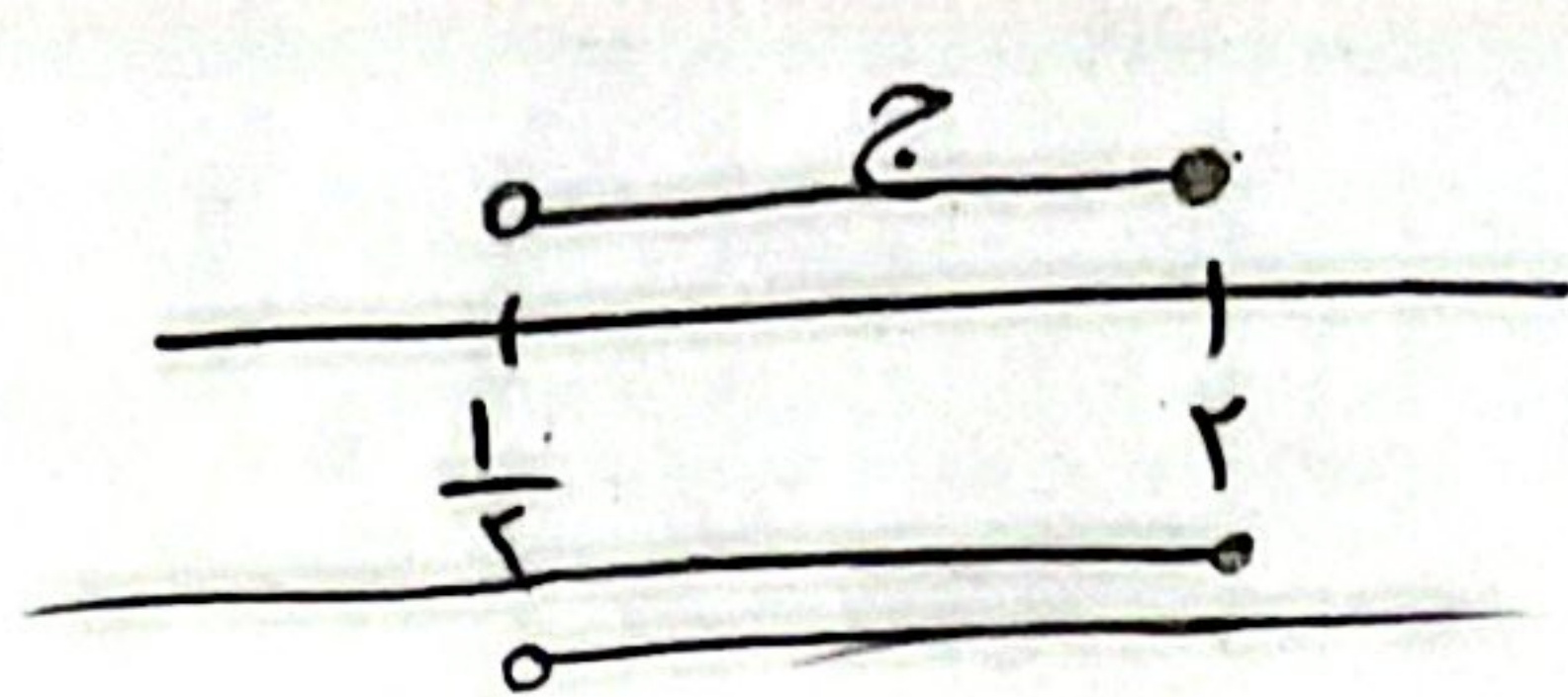
$$1 - b = a + (-4)$$

$$r_f = a + b$$

$$\begin{aligned} \cup) \quad & x^2 + 1x + 1 \neq 0 \quad \text{---} \\ & x^2 + 1x + 1 \neq 0 \\ & x(x+1) + (x+1) \neq 0 \\ & (x+1)(x+1) \neq 0 \\ & D_f = \mathbb{R} \setminus \{-1\} \end{aligned}$$

④

$$\left. \begin{array}{l} 4-3x \geq 0 \\ 4x-3 > 0 \end{array} \right\} \rightarrow \begin{array}{l} 2 \geq x \\ x > \frac{1}{4} \end{array}$$



$$D_f = (\frac{1}{4}, 2]$$

$$\left. \begin{array}{l} 12-a=0 \\ a=12 \\ b-4=0 \\ b=4 \end{array} \right\} \frac{b}{a} = \frac{4}{12} = \frac{1}{3}$$

$$\text{الف) } \frac{(x-3)(x+2)}{x^2-13x+36}$$

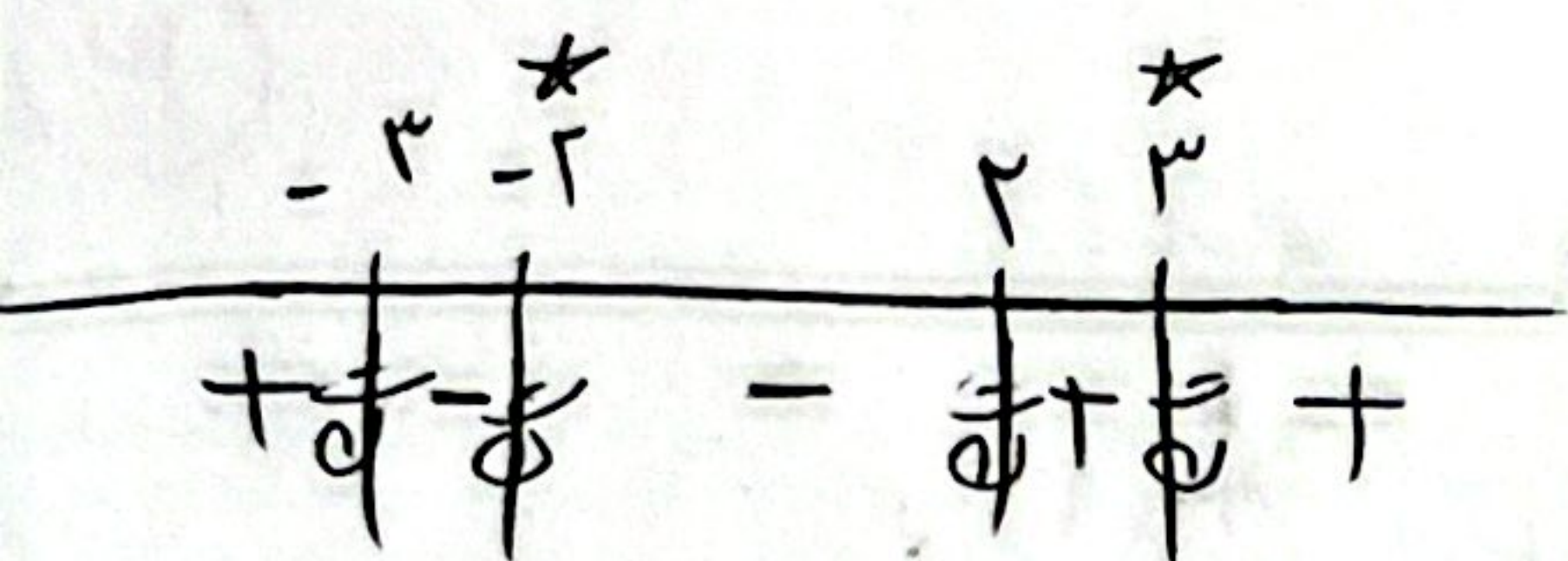
$$x^2 = t$$

$$t^2 - 13t + 36 = 0$$

$$(t-9)(t-4) = 0$$

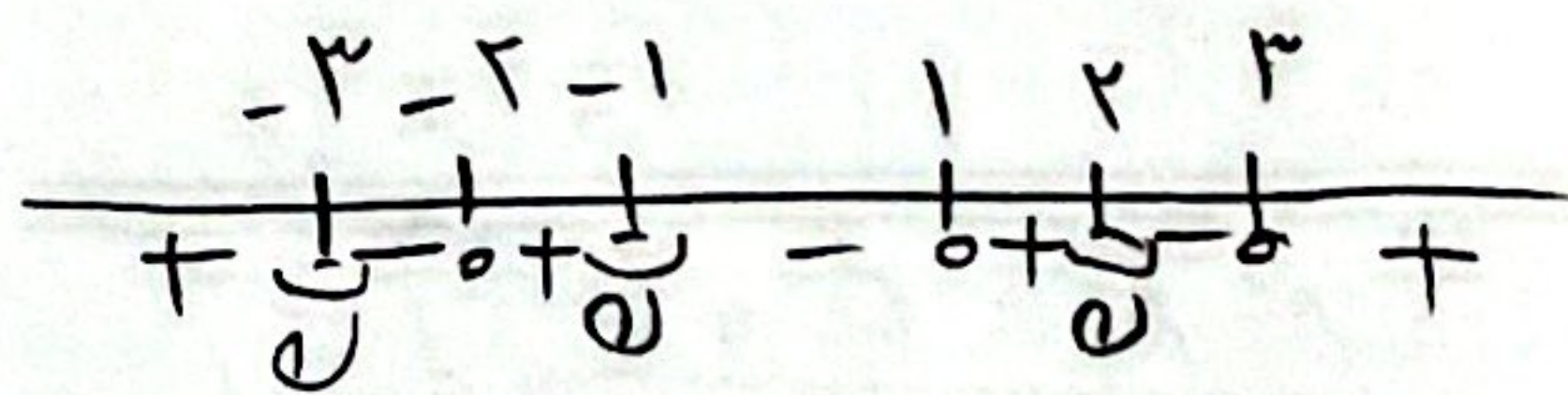
$$x^2 = 9 \rightarrow x = \pm 3$$

$$x^2 = 4 \rightarrow x = \pm 2$$



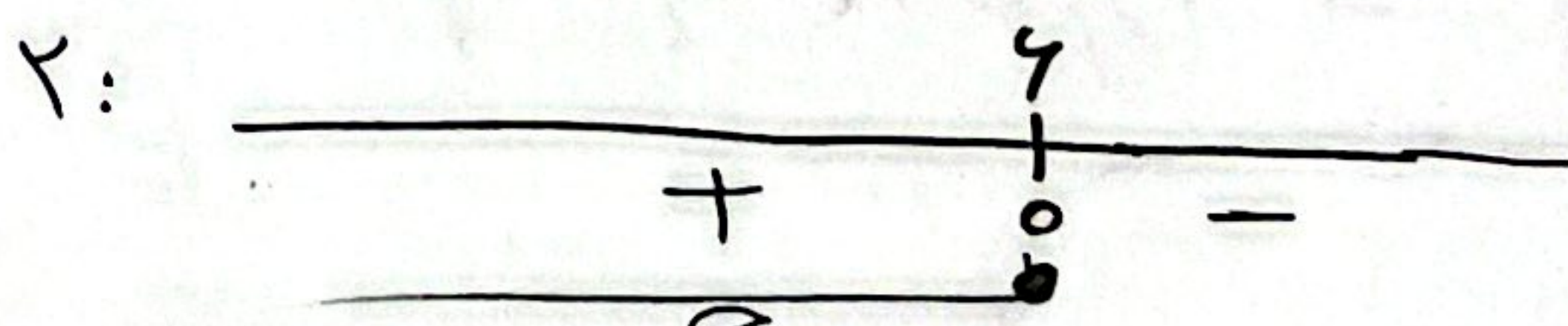
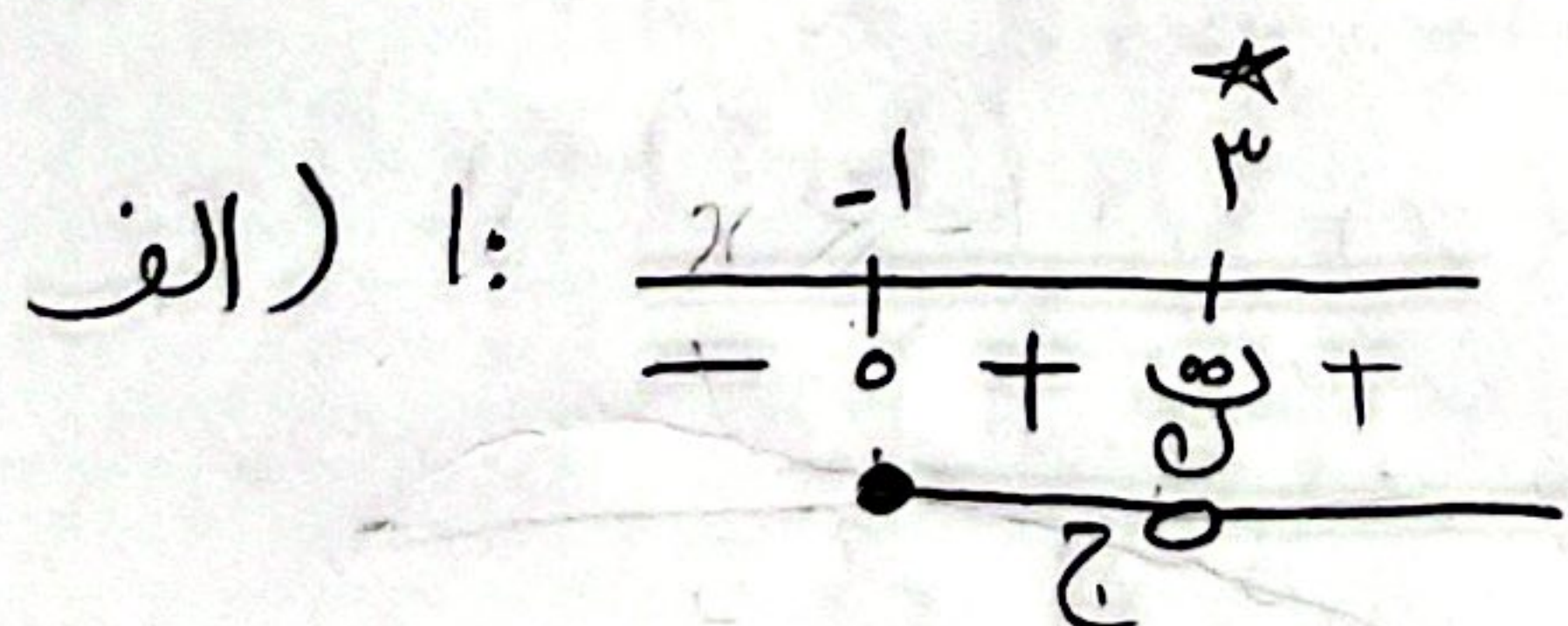
$$D_f = (-\infty, -3) \cup (2, 3) \cup (3, +\infty)$$

$$\text{ب) } \frac{(x+2)(x-1)(x-3)}{(x-2)(x+1)(x+3)}$$



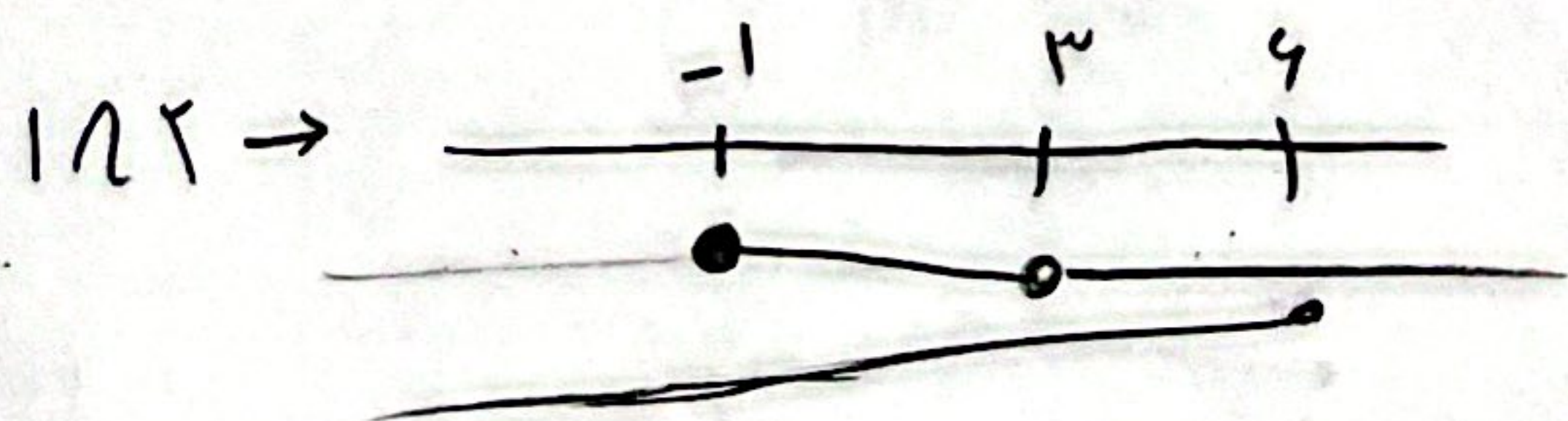
$$D_f = (-\infty, -3) \cup [-2, -1) \cup [1, 2) \cup [3, +\infty)$$

$$\text{الف) } [x] \geq 2 \quad x \geq 2 \quad D_f = [2, +\infty) \quad \text{ب) } [x] \geq \frac{9}{x} \quad x \geq 3 \quad D_f = [3, +\infty)$$



$$\Delta = 4 - 14 = -10 < 0 \rightarrow \text{ریشه ندارد}$$

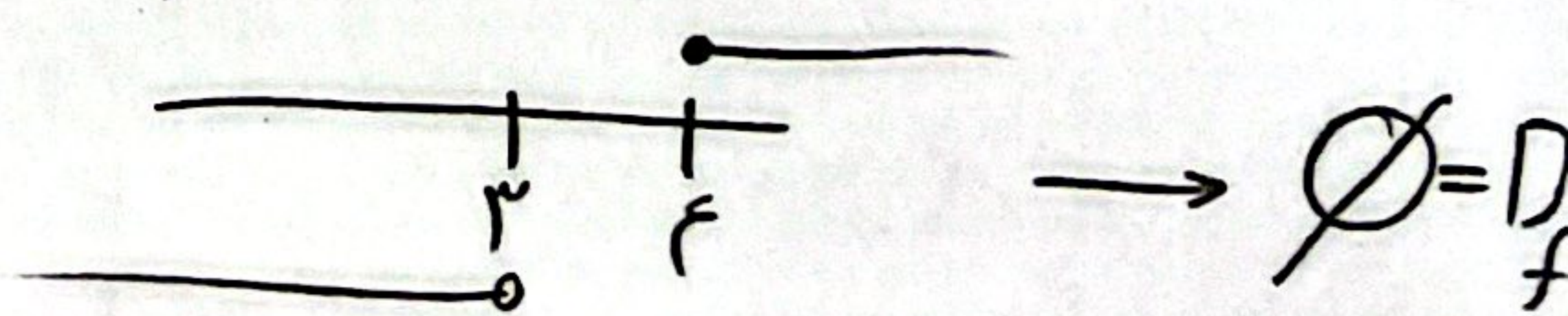
$$D_f = [-1, 4] = \{3\}$$



$$\text{ب) } [x] \geq 4 \quad x \geq 4$$

$$[x] < 2 \quad x < 2$$

$$\rightarrow$$



$$\rightarrow \emptyset = D_f$$