

1.114
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$$f = \sqrt{10 \frac{2}{x} + 25 \frac{1}{x} - 4 \cdot 25 \cdot 50 \frac{1}{x}}$$

$x \neq 0$: מציאת אזור

$$10 \frac{2}{x} + 25 \frac{1}{x} - 4 \cdot 25 \cdot 50 \frac{1}{x} \geq 0$$

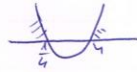
$$(2 \cdot 5) \frac{2}{x} + 5 \frac{2}{x} - 4 \cdot 25 \cdot (5 \cdot 2) \frac{1}{x} \geq 0$$

$$2 \frac{2}{x} \cdot 5 \frac{2}{x} + 5 \frac{2}{x} - 4 \cdot 25 \cdot 5 \frac{2}{x} \cdot 2 \frac{1}{x} \geq 0 \quad \text{מכאן } \frac{2}{x} \neq 0$$

$$\frac{2}{x} \cdot (5 \frac{2}{x} - 4 \cdot 25 \cdot 2)$$

$$5 \frac{2}{x} (2 \frac{2}{x} + 1 - 4 \cdot 25 \cdot 2 \frac{1}{x}) \geq 0$$

$$t^2 - 4 \cdot 25 t + 1 \geq 0$$



$$2 \frac{1}{x} = t \quad (x > 0)$$

$$t \geq 4$$

$$t \leq \frac{1}{4}$$

$$2 \frac{1}{x} \geq 4$$

$$2 \frac{1}{x} \leq \frac{1}{4}$$

$$\frac{1}{x} \geq 2$$

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

$$\frac{1}{2} \geq x$$

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

$$\boxed{0 < x \leq \frac{1}{2} \quad ; \quad -\frac{1}{2} \leq x < 0 \quad \text{!אין 10!}}$$