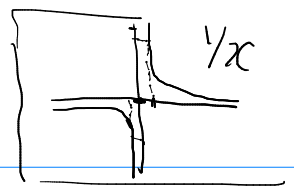
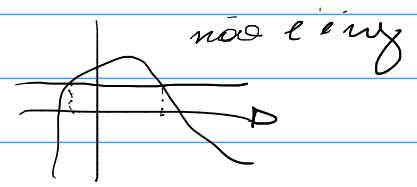


$$3-a) f: \mathbb{R} \setminus \{0\} \rightarrow \mathbb{R} \setminus \{0\}$$

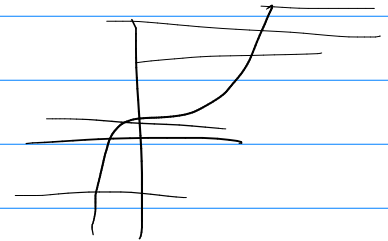
$$x \mapsto \frac{1}{x}$$



Imiz: $f(x) = f(y) \Rightarrow x = y$



$$\frac{1}{x} = \frac{1}{y} \Rightarrow y = x$$



Sobre: Seja $y \in \mathbb{R} \setminus \{0\}$. Então

$$f\left(\frac{1}{y}\right) = y$$

$$\parallel$$

$$\frac{1}{1/y}$$

conclusão: injetora e sobrejetora

$$5-c) A = \mathbb{R}_{\geq 0}, B = \mathbb{R}_{\geq 0} : h: A \rightarrow B \Rightarrow h^{-1}: B \rightarrow A$$

$$x \mapsto x^2$$

$$y = x^2 \Rightarrow x = y^2 \Rightarrow y = \pm \sqrt{x}$$

$$\Rightarrow y = -\sqrt{x}$$