

6. I'm going to define \mathbb{R}^+ as the set of positive real integers.

$$(a) \dots \forall x \in \mathbb{R}, \varepsilon \in \mathbb{R}^+, \exists \delta \in \mathbb{R}^+, (|x - a| < \delta) \implies (|f(x) - f(a)| < \varepsilon)$$

$$(b) \dots \exists x \in \mathbb{R}, \varepsilon \in \mathbb{R}^+, \forall \delta \in \mathbb{R}^+, (|x - a| < \delta) \wedge (|f(x) - f(a)| \geq \varepsilon)$$