

Quiz 8

1) Determine the following limit

$$\lim_{x \rightarrow 1^-} \frac{x - 1}{|x - 1|}$$

- (a) using the sequential definition;
- (b) using the $\epsilon - \delta$ definition.

(2) Let $f : D \rightarrow \mathbb{R}$ be continuous at $c \in D$. Prove that there exists an $M > 0$ and a neighborhood U of c such that $|f(x)| \leq M$ for all $x \in U \cap D$.