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Fall Term 2010 Name:

Analysis I — Quiz 8 30.11.10

Q8.1. Let $f : \mathbb{R} \longrightarrow \mathbb{R}$ be differentiable. Prove or provide a counterexample.

- (a) If f'(x) > 0 for all $x \in \mathbb{R}$, then f is strictly monotonically increasing.
- (b) If f is strictly monotonically increasing, then f'(x) > 0 for all $x \in \mathbb{R}$.