# Math 10860, Honors Calculus 2 <br> Quiz 9 <br> Thursday April 9 

1. State the precise definition of "sequence $\left(a_{n}\right)_{n=1}^{\infty}$ converges to limit $L$ as $n \rightarrow \infty$ "
2. Using the definition, show that $(1 / \sqrt{n}) \rightarrow 0$ as $n \rightarrow \infty$.
3. Suppose $\left(a_{n}\right) \rightarrow L$ as $n \rightarrow \infty$, with $L>0$. Prove that $\left(1 / a_{n}\right) \rightarrow$ $1 / L$ as $n \rightarrow \infty$.
