1. (3 points) Let $f(x)$ be a function defined near $x = a$. State the $\epsilon, \delta$-definition of $L = \lim_{x \to a} f(x)$.

2. (2 points) Let $f(x) = x$, and let $a$ be a real number. Prove, using the above definition, that $\lim_{x \to a} f(x) = a$. 