Quiz 6 MA341 Spring 2018

Let $f : \mathbb{R} \to \mathbb{R}$.

(a) What does it mean for f to be continuous at c?

(b) Suppose that f is continuous at a given $c \in \mathbb{R}$. Show that there is a $\delta > 0$ and a constant M > 0 so that $|f(x)| \leq M$ for all x that satisfy $|x - c| < \delta$. (Hint: $\epsilon = 1$ will do just fine)