

Take Quiz 1
Due Friday, October 15
Math 251 Lecture 01

You will have two attempts to improve your score on this quiz. Each attempt replaces the previous quizzes. Good luck!

[5 pts]

1. Let $f(x) = x^3$, $a = 0$ and $L = 0$. Find a number $\delta > 0$ such that if $|x - a| < \delta$, then $|f(x) - L| < 0.2$.

[5 pts]

2. Use the formal definition of the limit to verify:

$$\lim_{x \rightarrow 1} 3x - 1 = 2.$$

[5 pts]

3. If $\lim_{x \rightarrow a} f(x) = L$ and $\lim_{x \rightarrow a} g(x) = M$ prove that $\lim_{x \rightarrow a} f(x)g(x) = LM$. For hints, see number 33 on page 94.