

## Extra Credit Assignment 10

Due Friday, November 12, 11:59 PM

Using the definition of limits, prove the addition law. That is, assume that

$$\lim_{x \rightarrow a} f(x) = L \quad \text{and} \quad \lim_{x \rightarrow a} g(x) = M.$$

Prove to me that

$$\lim_{x \rightarrow a} (f(x) + g(x)) = L + M.$$