

WRITE YOUR NAME:

MAC 2311 Homework 2
Due in class, Friday September 22nd
You can use more paper if necessary, but please STAPLE

Question 1. Guess the approximate value of

$$\lim_{x \rightarrow 3} \frac{2^x - 8}{x - 3}$$

by evaluating at some specific values of x . You may use a calculator or computer for this question.

Question 2. Evaluate the limit.

$$\lim_{x \rightarrow 0} \frac{\sqrt{x^2 + 4} - 2}{x^2}$$

Question 3. Evaluate the limit.

$$\lim_{x \rightarrow \infty} (\sqrt{x^2 + 10x} - x)$$