Math 110 (Section 002) Learning Objectives

Students should be able to do the following things by the end of each respective unit. Additions may be made as the term progresses.

Evaluating limits

1. Explain, using a picture and rigorous but informal language, what the following phrases mean,

$$\lim_{x \to a} f(x) = L$$
$$\lim_{x \to a^-} f(x) = L$$
$$\lim_{x \to a^+} f(x) = L.$$

2. Argue why the notion of a limit is important.

3. Calculate the limits of simple rational functions whose limits exit.

4. Give examples of rational functions whose limits at a given finite number of points do not exist.