

Math 251  
 Jonny Comes  
 Winter 2006  
 Assignment #1  
 Partial Solutions

**Additional Exercises:**

1. Sketch one graph of a function  $f$  which satisfies all of the following:

- $\lim_{x \rightarrow 1^-} f(x) = 3$
- $\lim_{x \rightarrow 1^+} f(x) = 1$
- $\lim_{x \rightarrow -5} f(x)$  does not exist.
- $\lim_{x \rightarrow 6} f(x)$  exists, but  $\lim_{x \rightarrow 6} f(x) \neq f(6)$

**Solution:** There are many possible correct solutions. Here are a few:

