

MATH 157  
NAME(S):

LIMITS

SEPTEMBER 4, 2013

1. Sketch the graph of a function  $f$  such that:

- a)  $f(-4) = 2$  and  $\lim_{x \rightarrow -4} f(x) = 0$ ;
- b)  $\lim_{x \rightarrow 0^-} f(x) > 0$  and  $\lim_{x \rightarrow 0^+} f(x) < 0$ ;
- c)  $\lim_{x \rightarrow 2^-} f(x) \geq 0$ ,  $\lim_{x \rightarrow 2^+} f(x) \leq 0$ , and  $\lim_{x \rightarrow 2} f(x)$  exists;
- d)  $\lim_{x \rightarrow 4^-} f(x) = 1$  and  $\lim_{x \rightarrow 4^+} f(x)$  does not exist.

