# Worksheet 55.5 - Limits
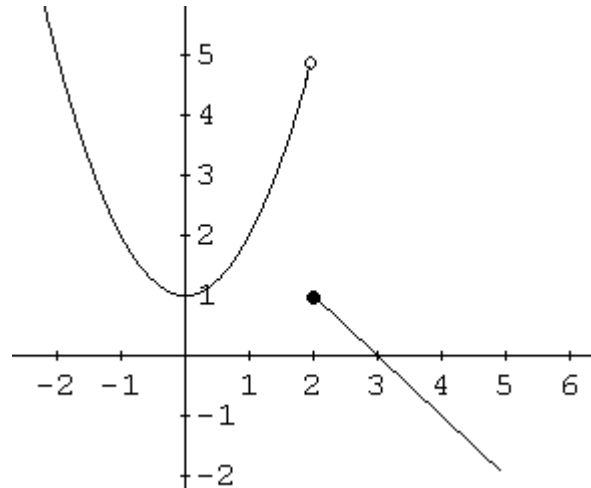
1. Evaluate the following limits using the graph of $f(x)$ or state that the limit does not exist.

   (a) $\lim\limits_{x\to-\infty} f(x) =$

   (b) $\lim\limits_{x\to\infty} f(x) =$

   (c) $\lim\limits_{x\to 0} f(x) =$
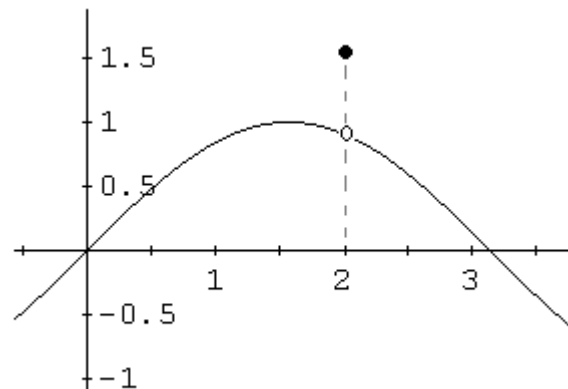
   (d) $\lim\limits_{x\to 2} f(x) =$



2. Evaluate the following limits using the graph of $g(x)$ or state that the limit does not exist.

   (a) $\lim\limits_{x\to-\infty} g(x) =$

   (b) $\lim\limits_{x\to\infty} g(x) =$

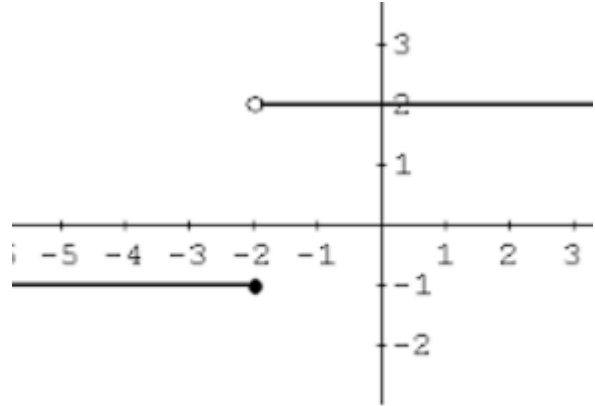   (c) $\lim\limits_{x\to 0} g(x) =$

   (d) $\lim\limits_{x\to 2} g(x) =$

3. Evaluate the following limits using the graph of $h(x)$ or state that the limit does not exist.

(a) $\lim\limits_{x \to -\infty} h(x) =$

(b) $\lim\limits_{x \to \infty} h(x) =$

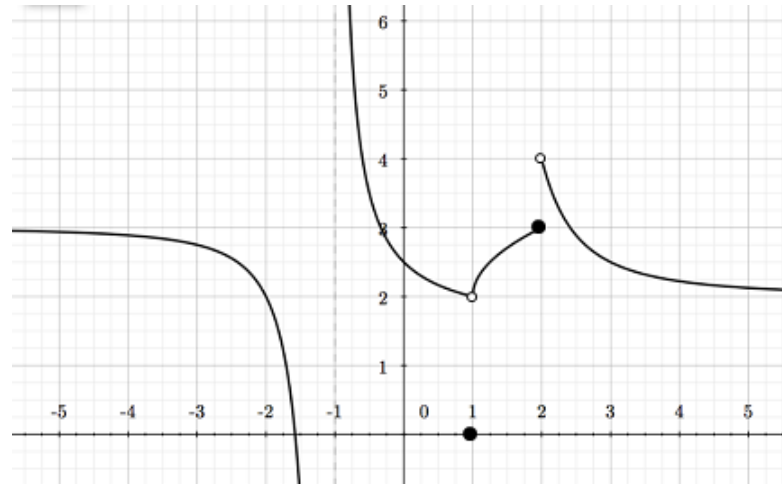(c) $\lim\limits_{x \to 0} h(x) =$

(d) $\lim\limits_{x \to -2} h(x) =$



4. Evaluate the following limits using the graph of $m(x)$ or state that the limit does not exist.

(a) $\lim\limits_{x \to -\infty} m(x) =$

(b) $\lim\limits_{x \to \infty} m(x) =$

(c) $\lim\limits_{x \to -1} m(x) =$

(d) $\lim\limits_{x \to 1} m(x) =$

5. Evaluate the following limits using the graph of $k(x)$ or state that the limit does not exist.

(a) $\lim\limits_{x \to -4} k(x) =$

(b) $\lim\limits_{x \to -3} k(x) =$

(c) $\lim\limits_{x \to -2} k(x) =$

(d) $\lim\limits_{x \to -1} k(x) =$

(e) $\lim\limits_{x \to 1} k(x) =$

(f) $\lim\limits_{x \to 2} k(x) =$

(g) $\lim\limits_{x \to 4} k(x) =$

(h) $k(-3) =$

(i) $k(-1) =$

(j) $k(1) =$