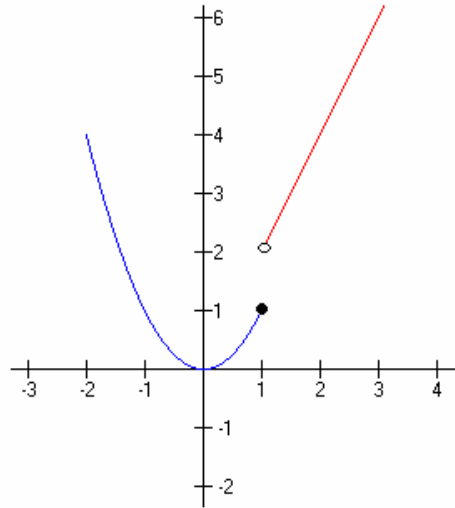
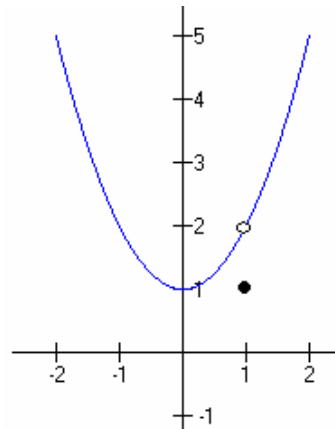


I. Use the graph to determine the following limits.

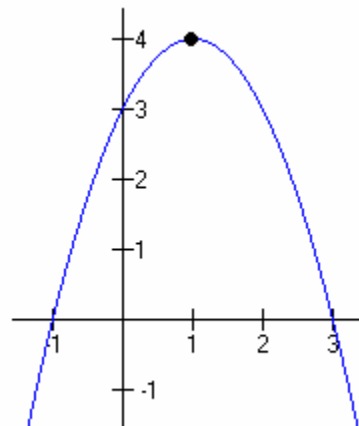
1. a) $\lim_{x \rightarrow 1^-} f(x) =$
 b) $\lim_{x \rightarrow 1^+} f(x) =$
 c) $\lim_{x \rightarrow 1} f(x) =$
 d) $f(1) =$



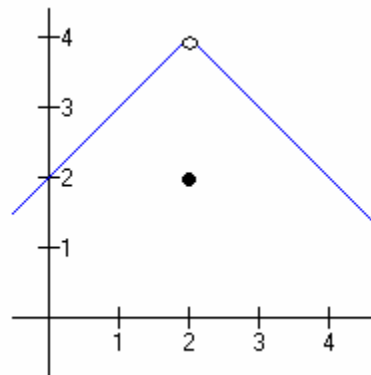
2. a) $\lim_{x \rightarrow 1^-} f(x) =$
 b) $\lim_{x \rightarrow 1^+} f(x) =$
 c) $\lim_{x \rightarrow 1} f(x) =$
 d) $f(1) =$



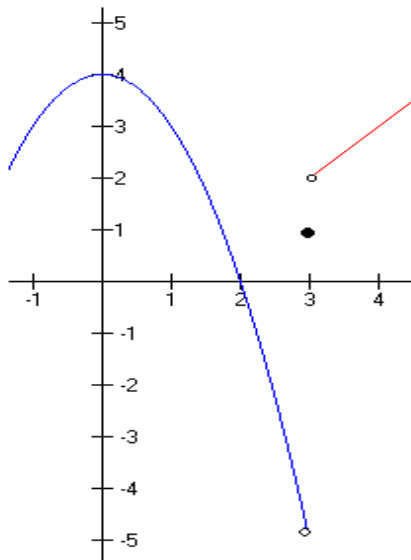
3. a) $\lim_{x \rightarrow 1^-} f(x) =$
 b) $\lim_{x \rightarrow 1^+} f(x) =$
 c) $\lim_{x \rightarrow 1} f(x) =$
 d) $f(1) =$



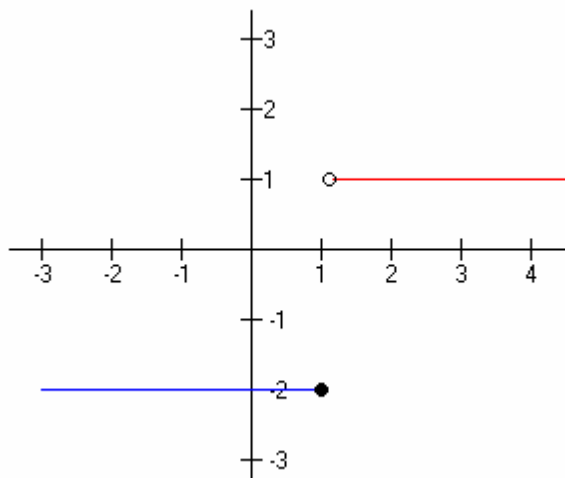
4. a) $\lim_{x \rightarrow 2^-} f(x) =$
 b) $\lim_{x \rightarrow 2^+} f(x) =$
 c) $\lim_{x \rightarrow 2} f(x) =$
 d) $f(2) =$



5. a) $\lim_{x \rightarrow 3^-} f(x) =$
 b) $\lim_{x \rightarrow 3^+} f(x) =$
 c) $\lim_{x \rightarrow 3} f(x) =$
 d) $f(3) =$



6. a) $\lim_{x \rightarrow 1^-} f(x) =$
 b) $\lim_{x \rightarrow 1^+} f(x) =$
 c) $\lim_{x \rightarrow 1} f(x) =$
 d) $f(1) =$



Answers

I. Use the graph to determine the following limits.

1. a) $\lim_{x \rightarrow 1^-} f(x) = 1$

b) $\lim_{x \rightarrow 1^+} f(x) = 2$

c) $\lim_{x \rightarrow 1} f(x) = \emptyset$

d) $f(1) = 1$

2. a) $\lim_{x \rightarrow 1^-} f(x) = 2$

b) $\lim_{x \rightarrow 1^+} f(x) = 2$

c) $\lim_{x \rightarrow 1} f(x) = 2$

d) $f(1) = 1$

3. a) $\lim_{x \rightarrow 1^-} f(x) = 4$

b) $\lim_{x \rightarrow 1^+} f(x) = 4$

c) $\lim_{x \rightarrow 1} f(x) = 4$

d) $f(1) = 4$

4. a) $\lim_{x \rightarrow 2^-} f(x) = -\infty$

b) $\lim_{x \rightarrow 2^+} f(x) = +\infty$

c) $\lim_{x \rightarrow 2} f(x) = \emptyset$

d) $f(2) = \emptyset$

5. a) $\lim_{x \rightarrow 3^-} f(x) = -5$

b) $\lim_{x \rightarrow 3^+} f(x) = 2$

c) $\lim_{x \rightarrow 3} f(x) = \emptyset$

d) $f(3) = 1$

6. a) $\lim_{x \rightarrow 1^-} f(x) = -2$

b) $\lim_{x \rightarrow 1^+} f(x) = 1$

c) $\lim_{x \rightarrow 1} f(x) = \emptyset$

d) $f(1) = -2$