

Evaluating the Limit of a Function at a Point Graphically

Directions: Evaluate each of the following.

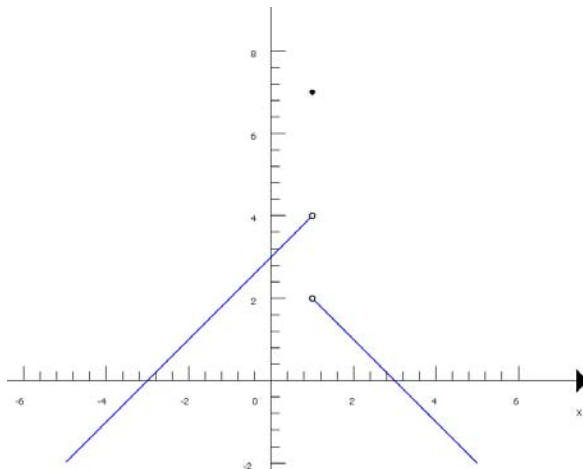
1) Let $f(x) = \begin{cases} 3+x & \text{if } x < 1 \\ 7 & \text{if } x = 1 \\ 3-x & \text{if } x > 1 \end{cases}$

a) $f(1) =$

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

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

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

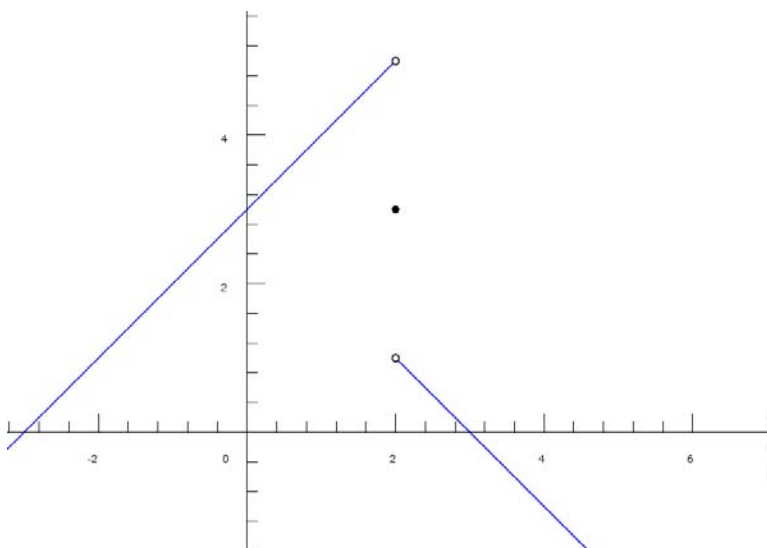


2) a) $f(2) =$

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

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

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

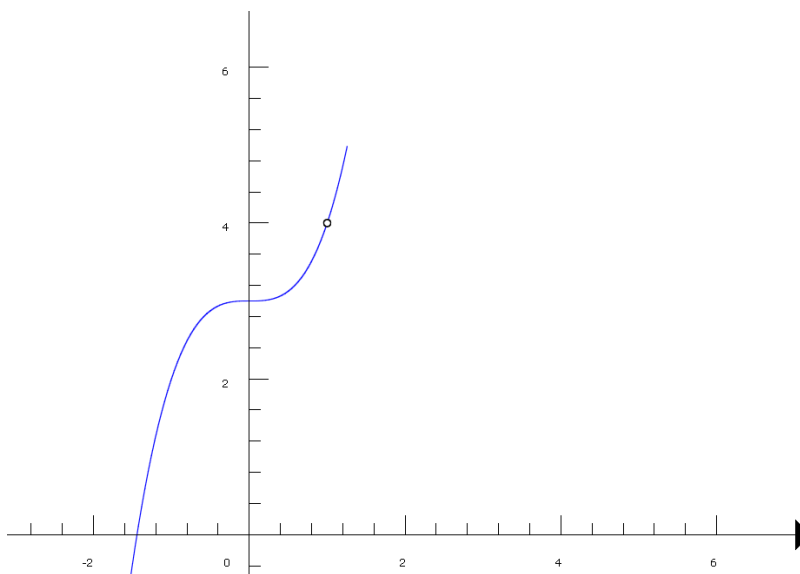


3) a) $f(1) =$

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

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

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



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

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

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

d) $f(-2) =$

e) $\lim_{x \rightarrow \infty} f(x) =$

f) $\lim_{x \rightarrow -\infty} f(x) =$

