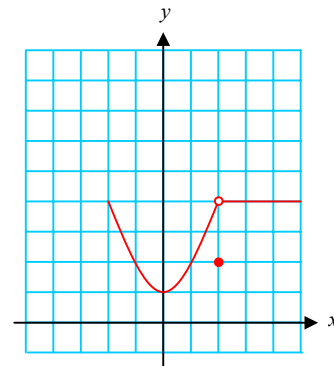


Refer to the graph of the function to determine the limit, if it exists. If it does not exist, explain why.

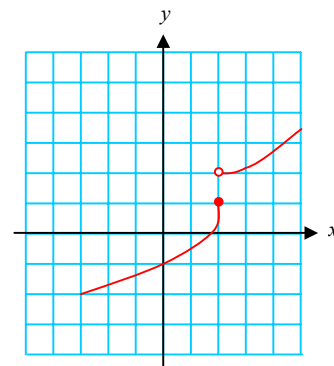
1. a) $\lim_{x \rightarrow 2^-} f(x)$
 b) $\lim_{x \rightarrow 2^+} f(x)$
 c) $\lim_{x \rightarrow 2} f(x)$

- d) $\lim_{x \rightarrow 0^-} f(x)$
 e) $\lim_{x \rightarrow 0^+} f(x)$
 f) $\lim_{x \rightarrow 0} f(x)$



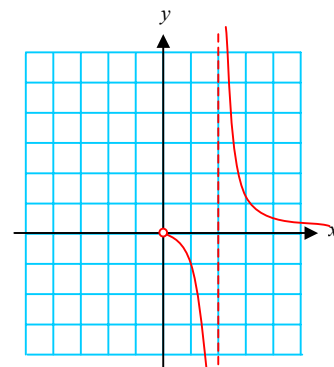
2. a) $\lim_{x \rightarrow 2^-} f(x)$
 b) $\lim_{x \rightarrow 2^+} f(x)$
 c) $\lim_{x \rightarrow 2} f(x)$

- d) $\lim_{x \rightarrow 0^-} f(x)$
 e) $\lim_{x \rightarrow 0^+} f(x)$
 f) $\lim_{x \rightarrow 0} f(x)$



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

- d) $\lim_{x \rightarrow 0^-} f(x)$
 e) $\lim_{x \rightarrow 0^+} f(x)$
 f) $\lim_{x \rightarrow 0} f(x)$



4. Sketch the graph of a function that satisfies ALL of the stated conditions:

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

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

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

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

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

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

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

$$\lim_{x \rightarrow 3^+} f(x) = 4$$