

Limits: A Graph Satisfying Several Conditions

Sketch a graph of a single function $f(x)$ that satisfies all of the following conditions:

1) $f(0) = 2$

2) $\lim_{x \rightarrow 0^-} f(x) = 2$

3) $\lim_{x \rightarrow 0^+} f(x) = 0$

4) $f(4) = 1$

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

6) $\lim_{x \rightarrow 4^+} f(x) = 0$

