

8. Sketch an example of a function f that satisfies all of the given conditions.

$$\lim_{x \rightarrow 0} f(x) = 1 ,$$

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

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

$$f(0) = -1, \quad f(3) = 1$$