

Exercise 7

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

$$\lim_{x \rightarrow 2} f(x) = -\infty, \quad \lim_{x \rightarrow \infty} f(x) = \infty, \quad \lim_{x \rightarrow -\infty} f(x) = 0,$$

$$\lim_{x \rightarrow 0^+} f(x) = \infty, \quad \lim_{x \rightarrow 0^-} f(x) = -\infty$$

Solution

Below is the graph of a function that satisfies these conditions.

