

Exercise 2

Sketch the graph of a function f that satisfies all of the following conditions:

$$\lim_{x \rightarrow -\infty} f(x) = -2, \quad \lim_{x \rightarrow \infty} f(x) = 0, \quad \lim_{x \rightarrow -3} f(x) = \infty,$$

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

f is continuous from the right at 3

Solution

The graph below satisfies all the conditions.

