

**Exercise 2**

If  $f$  is continuous on  $(-\infty, \infty)$ , what can you say about its graph?

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**Solution**

If  $f$  is continuous on  $(-\infty, \infty)$ , then there are no removable, infinite, or jump discontinuities in the graph. In other words, there are no holes or vertical asymptotes, and the left-hand and right-hand limits are identical for any finite value of  $x$ .