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## **Graphing Functions**

## Example

1. Sketch the graph of  $f(x) = \frac{2x}{x^2 + 1}$ .

## **Problems**

2. Sketch the graph of  $f(x) = x^2 - x$ .

3. Sketch the graph of  $f(x) = \frac{1}{1+x^2}$ .

4. Sketch the graph of  $f(x) = x + \frac{1}{2+x}$ .

5. Sketch the graph of  $f(x) = -12x - \frac{9x^2}{2} + x^3$ .

6. Sketch the graph of  $f(x) = e^x + 2e^{-x}$ .

7. Sketch the graph of  $f(x) = x - x^3$ .

8. Sketch the graph of  $f(x) = \frac{x-3}{x+1}$ .