## Exercise 49

In Exercises 47-62, say whether the function is even, odd, or neither. Give reasons for your answer.

$$
f(x)=x^{2}+1
$$

## Solution

The function is even because

$$
\begin{aligned}
f(-x) & =(-x)^{2}+1 \\
& =x^{2}+1 \\
& =f(x) .
\end{aligned}
$$

This is reflected in the graph by the symmetry about the $y$-axis.


