## Exercise 50

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

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

## Solution

The function is neither even nor odd because

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

This is reflected in the graph by the lack of symmetry about the $y$-axis or origin.


