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

$$f(-x) = (-x)^2 + (-x) = x^2 - x \neq f(x)$$

 $\neq -f(x).$

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

