

Exercise 51

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

$$g(x) = x^3 + x$$

Solution

The function is odd because

$$\begin{aligned} g(-x) &= (-x)^3 + (-x) \\ &= -x^3 - x \\ &= -(x^3 + x) \\ &= -g(x). \end{aligned}$$

This is reflected in the graph by the symmetry about the origin.

