Exercise 3

When examining the formula of a function that is the result of multiple transformations, how can you tell a horizontal compression from a vertical compression?

Solution

The formula of a function that is stretched horizontally and vertically looks like this.

$$y = Af(kx)$$

Multiplying x by a number k such that $k > 1$ results in a horizontal compression, whereas multiplying f by a number A such that $0 < A < 1$ results in a vertical compression.