

## Exercise 2

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

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