

Multiple Transformations of Functions

As there is for algebra a correct “order of operations” called BEDMAS, there is also a correct order of transformations.

The correct order is: “**rst**”

1. Reflections
2. Stretches (or compressions)
3. Translations

When doing multiple transformations on a function, pick only a few key points and apply these transformations to these coordinate pairs.

For simple functions the key points will be the “corners” and the “ends”.

For continuous functions like $y = x^2$ pick selected points on the curve.

Summary of Transformations

$$-f(x)$$

$$f(-x)$$

$$kf(x)$$

$$f(cx)$$

$$f(x) + d$$

$$f(x - c)$$