Exercise 74

For the following exercises, describe how the formula is a transformation of a toolkit function. Then sketch a graph of the transformation.

$$n(x) = \frac{1}{3}|x - 2|$$

Solution

Start with the parent function.

$$|x|$$

Multiplying by 1/3 vertically compresses the graph by a factor of 1/3.

$$\frac{1}{3}|x|$$

Replacing x with $x - 2$ shifts the graph to the right by 2 units.

$$\frac{1}{3}|x - 2|$$