## Exercise 4

How does the graph of the absolute value function compare to the graph of the quadratic function, $y=x^{2}$, in terms of increasing and decreasing intervals?

## Solution

The interval on which the functions increase is $(0, \infty)$, and the interval on which the functions decrease is $(-\infty, 0)$. This is illustrated in the graph of the two functions versus $x$ below.


