

# Transformations

For the parent function  $f(x)$ :

$f(x) + c$  moves the graph **up**  $c$  units

$f(x) - c$  moves the graph **down**  $c$  units

$f(x + c)$  moves the graph **left**  $c$  units

$f(x - c)$  moves the graph **right**  $c$  units

$-f(x)$  **reflects** the graph over the x-axis

Draw the graphs on the grid below.

1.  $y = |x|$

2.  $y = |x| + 6$

3.  $y = |x - 7|$

4.  $y = |x + 4| + 5$

5.  $y = -|x - 2| - 3$

