

1.1 Practice B

In Exercises 1–4, graph the function. Compare the graph to the graph of $f(x) = |x|$. Describe the domain and range.

1. $m(x) = |x - 3|$

2. $t(x) = 4|x|$

3. $g(x) = -3|x|$

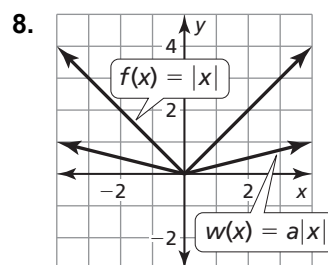
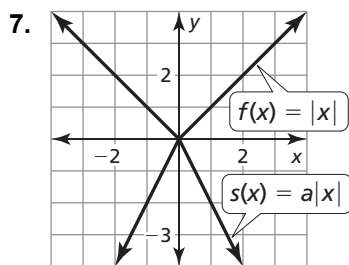
4. $z(x) = -\frac{4}{3}|x|$

In Exercises 5 and 6, graph the function. Compare the graph to the graph of $f(x) = |x - 2| + 4$.

5. $k(x) = |x - 5| + 4$

6. $q(x) = |x - 2| - 3$

In Exercises 7 and 8, compare the graphs. Find the value of h , k , or a .



In Exercises 9 and 10, write an equation that represents the given transformation(s) of the graph of $g(x) = |x|$.

9. horizontal translation 7 units right

10. vertical shrink by a factor of $\frac{1}{3}$ and a reflection in the x -axis

In Exercises 11 and 12, graph and compare the two functions.

11. $c(x) = |x - 4| + 3$; $d(x) = |6x - 4| + 3$

12. $p(x) = |x + 1| - 2$; $q(x) = \left| -\frac{2}{5}x + 1 \right| - 2$

13. Graph $y = -\frac{3}{2}|x + 3| - 5$ and $y = -8$ in the same coordinate plane.

Use the graph to solve the equation $-\frac{3}{2}|x + 3| - 5 = -8$. Check your solutions.