

Algebra 2

WS: Absolute Value Functions

Name _____
Date _____ Block _____

Using the graph of $f(x) = |x|$ as a guide, describe the transformations of each function and identify its domain and range.

1. $g(x) = |x| + 4$ 2. $g(x) = -2|x - 3|$ 3. $g(x) = 3.2|x + 1| - 2$ 4. $g(x) = \frac{1}{2}|x| - 3$

Identify the vertex of the graph of each function.

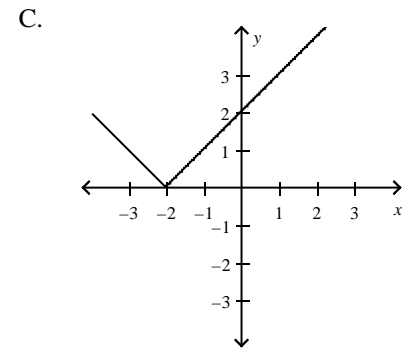
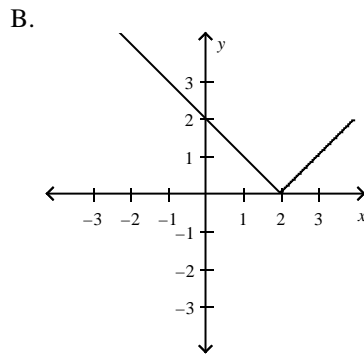
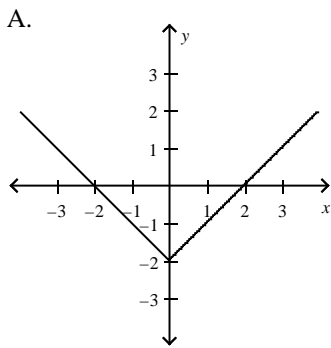
5. $f(x) = |x| + 4$ 6. $f(x) = -2|x - 3|$ 7. $f(x) = 3.2|x + 1| - 2$ 8. $f(x) = \frac{1}{2}|x| - 3$

Match the function with its graph.

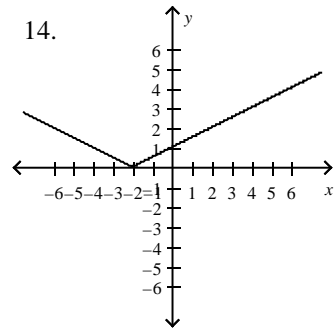
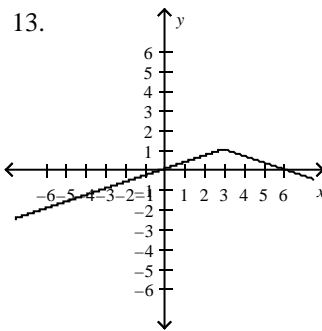
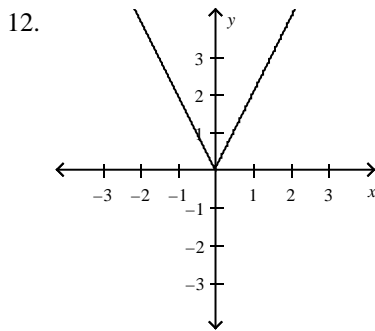
9. $f(x) = |x - 2|$

10. $g(x) = |x| - 2$

11. $h(x) = |x + 2|$



Write an equation for each absolute value function.



Graph the absolute value function.

15. $f(x) = -2|x - 1| + 3$

16. $f(x) = \frac{1}{3}|x| + 2$

17. $f(x) = |x + 1| - 2$

