Name_____ Date_____ Period_____

GRAPHING ABSOLUTE VALUE FUNCTIONS WORKSHEET

For the functions below, identify the vertex and then describe the transformations from the parent function: $y = |x|$.

1. $y = -|x + 5|$
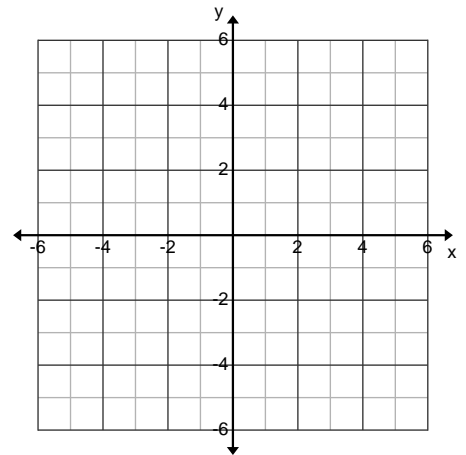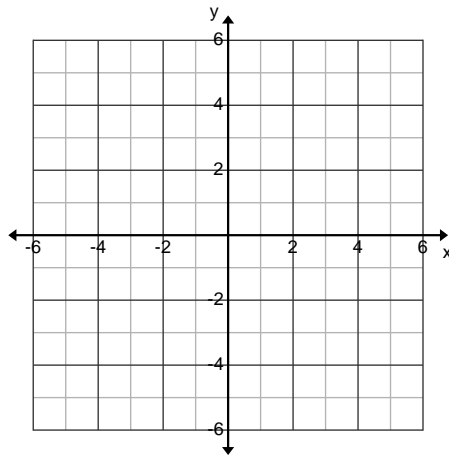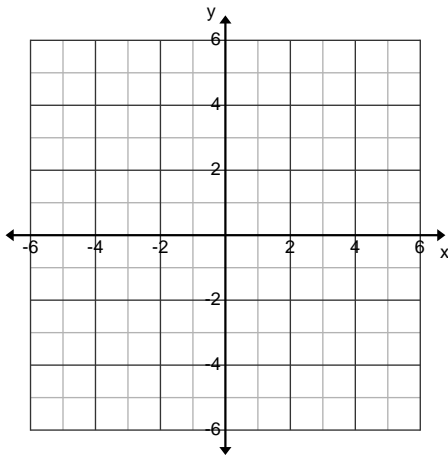
2. $y = 4|x - 3| - 5$

3. $y = -3|x + 2| + 6$

4. $y = \frac{1}{3}|x| - 4$
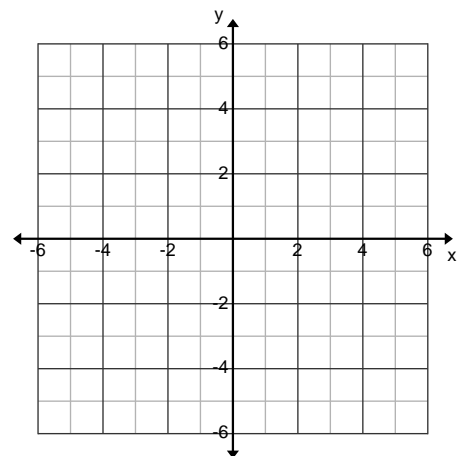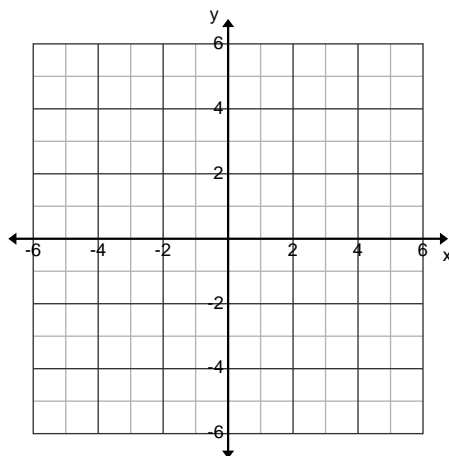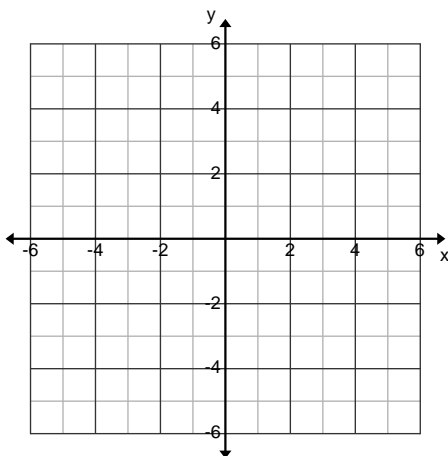
Graph the functions.

5. $y = |x| - 2$

6. $y = |x + 3|$

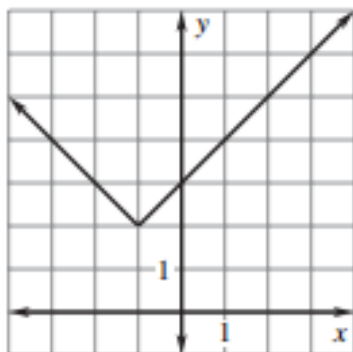7. $y = |x + 2| + 1$

8. $y = 2|x + 1| - 1$

9. $y = -|x - 2| + 3$
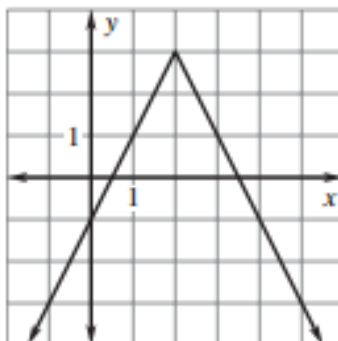
10. $y = \frac{1}{2}|x| - 3$

Find the equation for the graphs shown below. Write the equation as an absolute-value function and also as a piecewise-defined function.
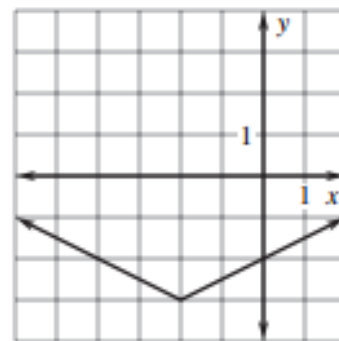
11.

12.

13.

State the domain and range for the functions above.

14. (#11 above)

15. (#12 above)

16. (#13 above)