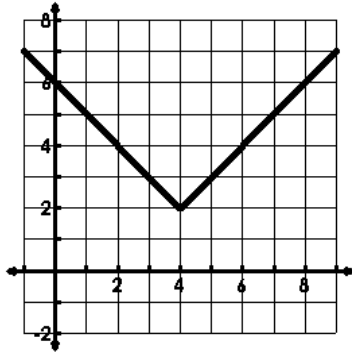


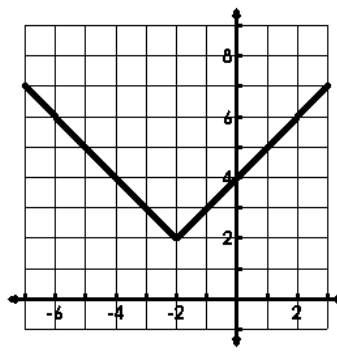
Name: \_\_\_\_\_ Date: \_\_\_\_\_

Write the equation for the absolute value graphs.

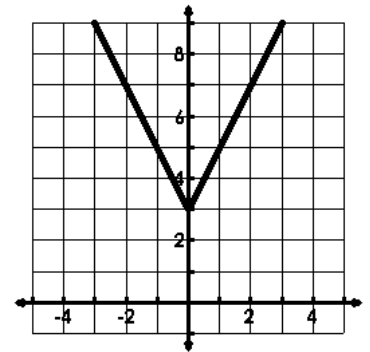
1.



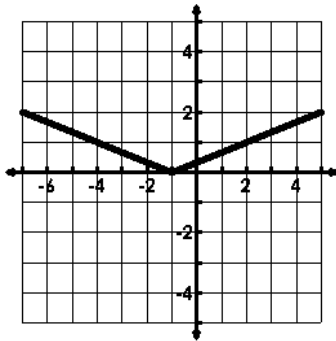
2.



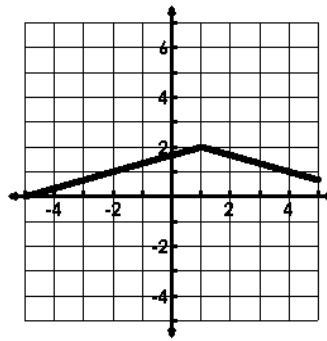
3.



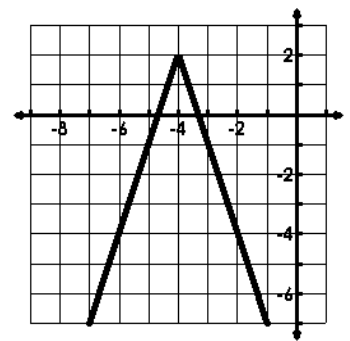
4.



5.

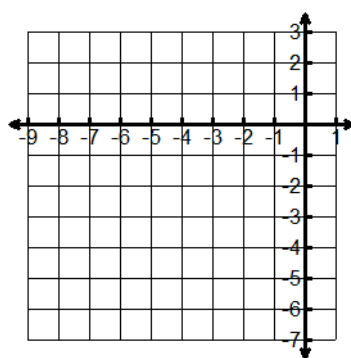


6.

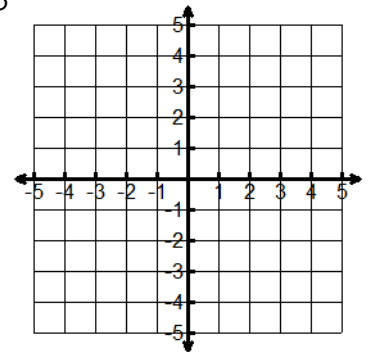


Graph the absolute value function. State the vertex and the value of "a".

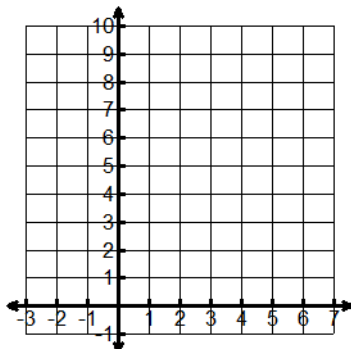
7.  $f(x) = -|x + 4|$



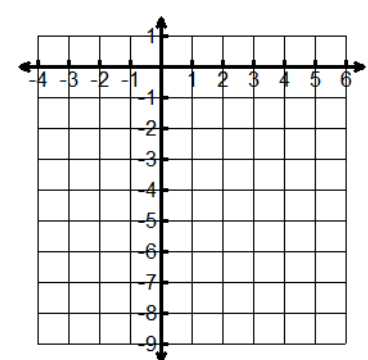
8.  $f(x) = 4|x - 1| - 3$



9.  $f(x) = |x - 3| + 4$



10.  $f(x) = -\frac{1}{2}|x + 1|$



Describe the transformations.

11.  $f(x) = -3|x|$

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

13.  $f(x) = -|x+2| + 5$

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

15.  $f(x) = -\frac{1}{3}|x-3| - 4$

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

Solve the following equations for x.

17.  $-2|x| = -4$

18.  $|x-4| - 5 = 1$

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

20.  $2|x+1| + 1 = 1$

21.  $-3|x+5| + 2 = 5$

22.  $|x+3| = 7x$

$$23. f(x) = \begin{cases} 2x^2, & x < 2 \\ |x-4|, & x \geq 2 \end{cases}$$

Domain: \_\_\_\_\_

Range: \_\_\_\_\_

Pt. of Discontinuity: \_\_\_\_\_

Increasing: \_\_\_\_\_

