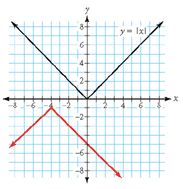
CC8 – Algebra Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Translating and Reflecting Graphs Date \_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_

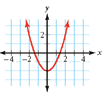
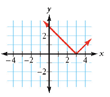
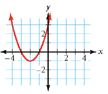
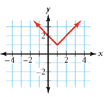
1. Describe each graph as a transformation of y = or y = x2. Then write its equation.



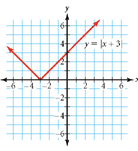
Example: Answer: Reflect the graph y = across the x-axis. Then, translate

4 units to the left and 1 unit down.

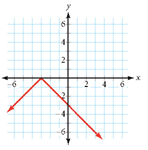
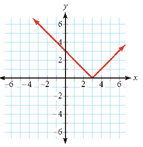
Equation: y =



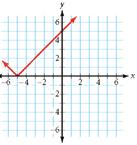
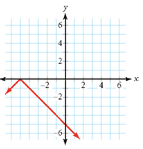
a. b. c. d.



2. Describe each graph below as a transformation of y = , shown at the right.



1. b.



c. d.

3. Write an equation for each transformation of the given parent function.

a. Transform the parent function by translating it to the left 5 and up 7 units.

b. Transform the parent function y = x2 by translating it to the right 6 and then reflecting it across the x-axis.

c. Transform the parent function y = x2 moving it down 3 units and to the left 10 units.

d. Transform the parent function by moving it down 2 units and reflecting it across the x-axis.

e. Transform the parent function by reflecting it across the x-axis, moving it to right 7 units and down 1

unit.

4. Describe how each equation transforms the parent graph y = x2 or y = .

a. y = (x + 3)2 b. y = c. y = -x2 – 5

d. y = (x – 2)2 + 13 e. y = - f. y + 2.5 = .

5. Use f(x) = 2 + 1 to find the following:

a. f(5) b. f(-6) c. f(-2) + 3 d. f(x + 2)

6. A chemical reaction consumes 12% of the reactant per minute. A scientist begins with 500 grams of one

reactant. So, the equation y = 500 (0.88)x gives the amount of reactant, y, remaining after x minutes.

1. What does the number 0.88 tell you? b. What does the number 500 tell you?

c. How much reactant is remaining after 5 minutes?

7. This table shows the temperature

of water in a pan set on a stove.

1. Find the equation of a line that models this data.
2. How long will it take for the water to boil (100°C)?