6 Rev C: Practice for Test Chapter 6 (8CP) Name $\qquad$
Date $\qquad$ Per $\qquad$

1. Fill in the table then write an equation that describes the function shown by the table.

| Input, $x$ | -4 | 0 | 4 | 8 |  | 100 | 0.5 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Output, $y$ | 17 |  | -15 | -31 | 21 |  |  |

2. The table shows the number of cupcakes remaining in the bakery case throughout the day.
a. Write an equation that relates the number of cupcakes to the

| Hours <br> $x$ | Number of <br> cupcakes, $y$ |
| :---: | :---: |
| 1 | 75 |
| 4 | 63 |
| 7 | 51 |
| 10 | 39 | hours that the bakery is open.

b. How many cupcakes are in the case after 9 hours?

Create 2 mapping diagrams - one that is a function and one that is not. List the ordered pairs.
3. Input
Output

4. Input Output

5. Sue is saving money to buy a laptop. She has $\$ 45$ in the bank and is saving $\$ 15$ each week.
a. Write the rule for this situation $\qquad$
b. Graph using appropriate scale and label axes

c. Interpret the slope in the context of this problem:
d. Interpret the y-intercept in the context of this problem:
e. if the laptop is $\$ 450$ when will she have enough money to buy it?
6. Write a complete story for the graph.

7. Solve:
a. $4 x-9=7 x+12$
b. $\frac{1}{2}(4 x-8)=-20$
c. $2 x+6+x=3(x+2)$

Find the value of $y$ for the given value of $x$.
8. $y=-\frac{1}{2} x+9 \quad$ for $x=16$
9. $y=12 x-100$ for $x=8$
10. Graph the equations:
$y=\frac{1}{3} x-4$
$y=-4 x+7$
Slope: $\qquad$
$\qquad$
$y$-intercept: $\qquad$ $\mathrm{b}=$ $\qquad$
$6 \operatorname{Rev} C$ (8CP)


