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Directions: When working each of the following questions, be sure to show all work.

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1)

<i>Input (x)</i>	$5x + 3$	<i>Output (y)</i>
6		
4		
2		?

2)

<i>Input (x)</i>	$\frac{1}{2}x - 11$	<i>Output (y)</i>
2		
4		?
6		

3)

<i>Input (x)</i>	10	9	8	7	6
<i>Output (y)</i>	-1	-2	-3	-4	?

4) Write an equation to represent the relationship between the independent and dependent quantities.

a)  $y = \frac{x}{2}$

b)  $y = x - 4$

c)  $y = x + 4$

d)  $y = 4 + x$

<i>Input (x)</i>	-8	-5	-2	1	4
<i>Output (y)</i>	-4	-1	2	5	8

5) Emma has a \$10 check she received from her sister for her birthday and some money in her bank account. She has the money to make a purchase of \$10 more than the amount in her bank account. Write an equation to find the total amount y Emma can spend and the amount x she has in her bank account.

a)  $y = x + 10$

b)  $y = x - 10$

c)  $y = x + 20$

d)  $y = x - 20$

<i>Amount in Bank (x)</i>	20	30	40	50
<i>Total Amount Emma can Spend (y)</i>	30	40	50	60

- 6) An adult manatee eats approximately 100 pounds of aquatic food per day. Write an equation to find  $y$ , the number of pounds of food an adult manatee can eat in  $x$  days

a)  $y = 100 + x$

b)  $y = 100x$

c)  $y = \frac{100}{x}$

d)  $y = \frac{x}{100}$

<i>Input (x)</i>	500	400	300	200	100
<i>Output (y)</i>	5	4	3	2	1