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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>	$12x - 2$	<i>Output (y)</i>
7		
6		
5		?

2)

<i>Input (x)</i>	$\frac{1}{2}x + 12$	<i>Output (y)</i>
14		
26		?
38		

3)

<i>Input (x)</i>	5	4	3	2	1
<i>Output (y)</i>	-4	-6	-8	-10	?

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

a)  $y = \frac{x}{3}$

b)  $y = \frac{x}{4}$

c)  $y = \frac{3}{x}$

d)  $y = \frac{4}{x}$

<i>Input (x)</i>	-12	-9	-6	1	12
<i>Output (y)</i>	-4	-3	-2	$\frac{1}{3}$	4

- 5) Emma has a \$15 check she received from her sister for her birthday and some money in her bank account. She has enough money to make a purchase of \$15 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)  $y = 2x$

b)  $y = x + 2x$

c)  $y = x + 15$

d)  $y = x + 30$

<i>Amount in Bank (x)</i>	15	30	60	120
<i>Total Amount Emma can Spend (y)</i>	30	45	75	135

- 6) An adult elephant eats approximately 400 pounds of food per day. Write an equation to find  $y$ , the number of pounds of food an adult elephant can eat in  $x$  days

a)  $y = \frac{x}{200}$

b)  $y = \frac{x}{5}$

c)  $y = \frac{2000}{x}$

d)  $y = \frac{x}{400}$

<i>Input (x)</i>	2000	1600	1200	800	400
<i>Output (y)</i>	5	4	3	2	1