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Function Tables

Directions:

Translate each statement into a mathematical equation, and then complete the function table:

1. y is equal to two more than the product of x and 3.

Means multiplication

Mathematical translation:

$y = 2 + 3x$

Complete the table of values:

x	y
0	0
1	5
2	8
3	11

* After writing equation, plug in "x" value into equation.

$y = 2 + 3 \times 0 = 2 + 0 = 0$
 $y = 2 + 3 \times 1 = 2 + 3 = 5$
 $y = 2 + 3 \times 2 = 2 + 6 = 8$
 $y = 2 + 3 \times 3 = 2 + 9 = 11$

word reversal which means start with Right side first

2. y is equal to three less than the product of 2 and x.

Mathematical translation:

$y = 2x - 3$

Complete the table of values:

x	y
3	3
4	5
5	7
6	9

$y = 2 \times 3 - 3 = 6 - 3 = 3$
 $y = 2 \times 4 - 3 = 8 - 3 = 5$
 $y = 2 \times 5 - 3 = 10 - 3 = 7$
 $y = 2 \times 6 - 3 = 12 - 3 = 9$

↓ Division

3. y is equal to the quotient of x and 2.

Mathematical translation:

$$y = x \div 2 \quad \text{or} \quad y = \frac{x}{2}$$

Complete the table of values:

x	y
0	0
2	1
4	2
6	3

$$y = 0 \div 2 = 0$$

$$y = 2 \div 2 = 1$$

$$y = 4 \div 2 = 2$$

$$y = 6 \div 2 = 3$$

4. y is equal to two less than the sum of 2 and x.

Word reversal

↻ Addition

Mathematical translation:

$$y = 2 + x - 2$$

Complete the table of values:

x	y
0	0
1	1
2	2
3	3

$$y = 2 + 0 - 2 = 2 - 2 = 0$$

$$y = 2 + 1 - 2 = 3 - 2 = 1$$

$$y = 2 + 2 - 2 = 4 - 2 = 2$$

$$y = 3 + 2 - 2 = 5 - 2 = 3$$

5. y is equal to one more than the product of 2 and x.

Mathematical translation:

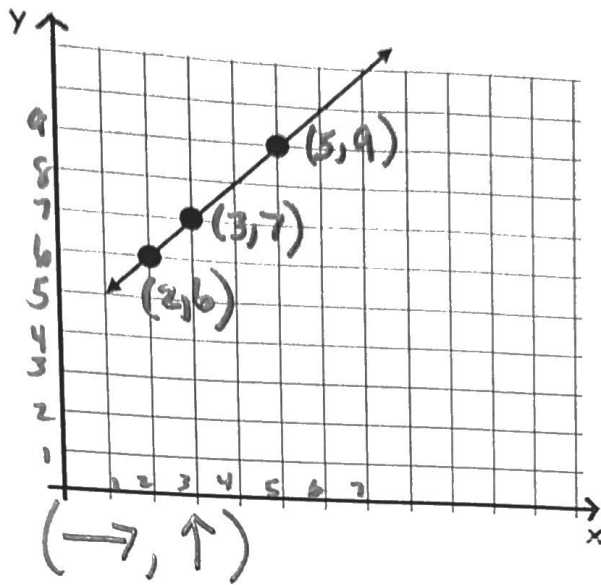
$$y = 1 + 2x$$

Complete the table of values:

x	y
0	
1	
2	
3	

For each of the next problems match the line with the equation.

1.



★ Write ordered pair (x, y) first

★ plug in x and y into ALL equations below

★ If $y = x$ then that equation matches line.

~~A. $y = 2x + 2$~~
 $6 = 2 \cdot 2 + 2$
 $6 = 4 + 2$
 $6 = 6 \checkmark$

~~B. $y = 3x$~~

$7 = 2 \cdot 3 + 2$
 $7 = 6 + 2$
 $7 = 8 \times$

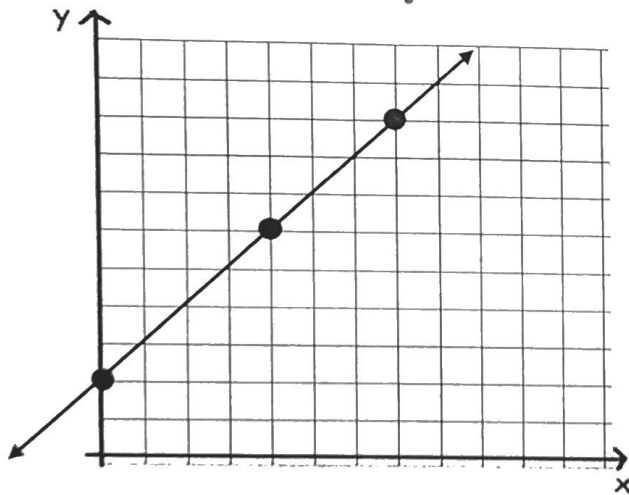
~~C. $y = 4x - 2$~~

$6 = 4 \cdot 2 - 2$
 $6 = 8 - 2$
 $6 = 6 \checkmark$

D. $y = x + 4$

$6 = 2 + 4$
 $6 = 6 \checkmark$

2.



$7 = 4 \cdot 3 - 2$
 $7 = 12 - 10$
 $7 = 10 \times$

$7 = 3 + 4$
 $7 = 7 \checkmark$

$9 = 5 + 4$
 $9 = 9 \checkmark$

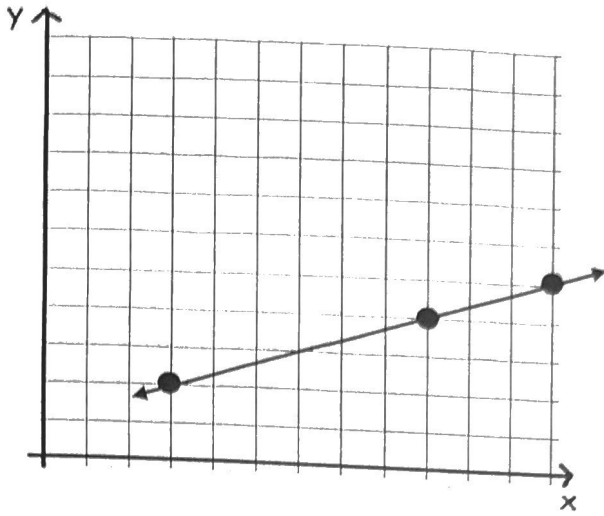
A. $y = x + 2$

B. $y = 2x$

C. $y = 6x - 10$

D. $y = 5x$

3.



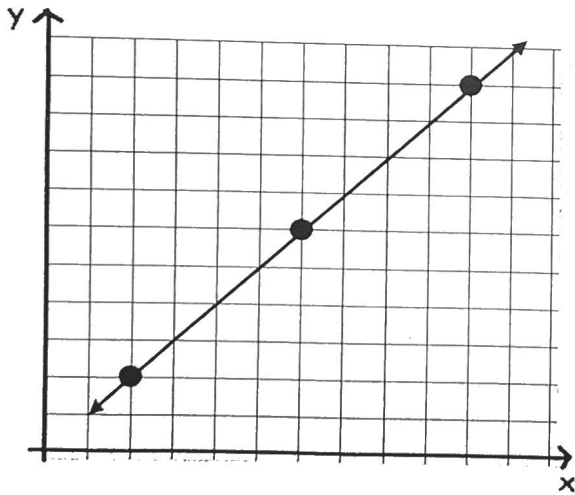
A. $y = \frac{x}{3} + 1$

B. $y = x + 1$

C. $y = \frac{x}{2}$

D. $y = 2x - 4$

4.



A. $y = 2x$

B. $y = 3x - 4$

C. $y = x + 2$

D. $y = x$

Activity: Car Wash Problem

Jake is volunteering at a car wash to help raise money for his school. They are charging \$5.00 per car.

Let x = the number of cars and y = the amount of money raised

Write an equation from the information above.

$y = 5x$ ← \$5 per car
 ← # of cars

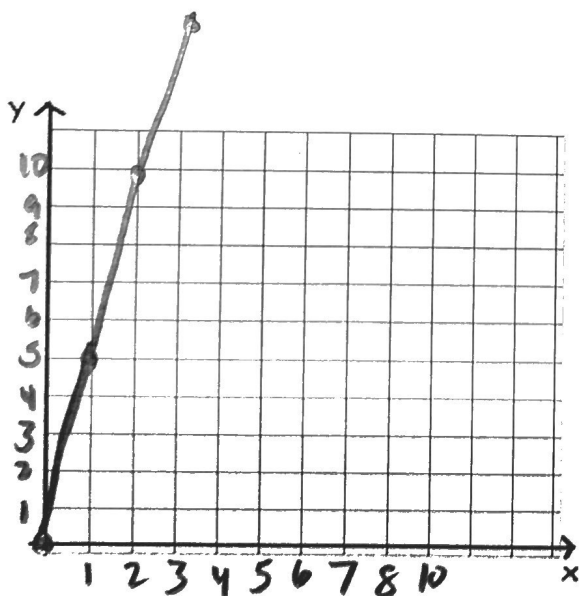
Complete the table of values below using your equation.

x	y
0	0
1	5
2	10
3	15

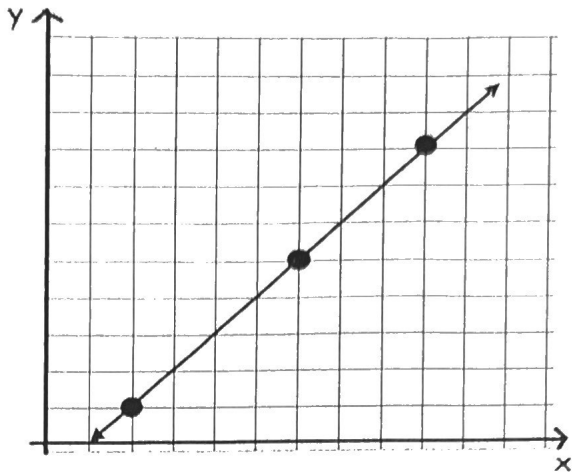
$y = 5 \times 0 = 0$
 $y = 5 \times 1 = 5$
 $y = 5 \times 2 = 10$
 $y = 5 \times 3 = 15$

Use your points to graph your equation. What is the relationship between x and y ?

for every car, Jake earns \$5



5.



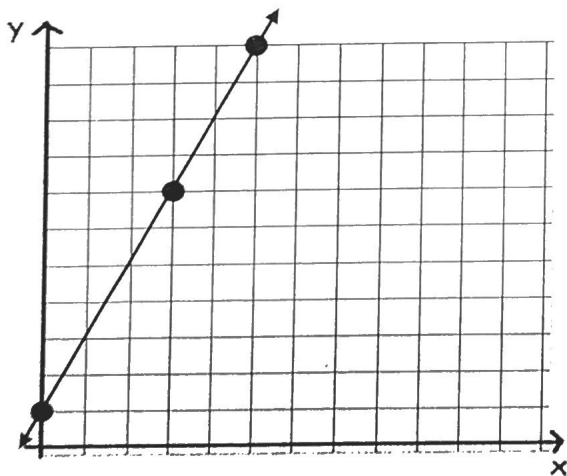
A. $y = \frac{x}{4} + \frac{1}{2}$

B. $y = x - 1$

C. $y = \frac{x}{2} + 1$

D. $y = 3x - 5$

6



A. $y = 4x - 3$

B. $y = 3x$

C. $y = 2x + 1$

D. $y = x - 3$