

NON-PROPORTIONAL RELATIONSHIPS

1. Jackson currently has \$35 in his bank account, and he is saving \$15 a week to eventually buy a new cell phone. He can represent the amount in his account with the equation $y = 15x + 35$.

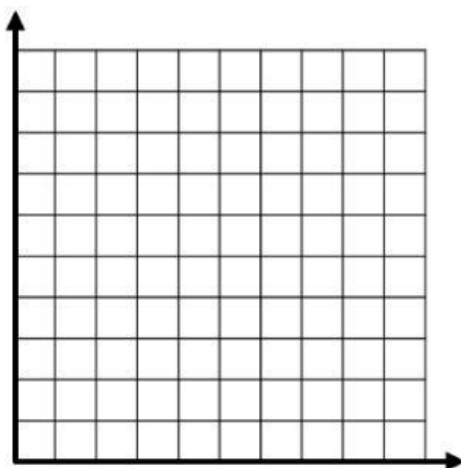
- a. What does "x" represent in the equation? _____
- b. What does "y" represent in the equation? _____
- c. What is the slope? _____
- d. What is the y-intercept? _____

2. Create a table of values for Jackson's situation described above.

x	0	1	2	3	4	5
y						

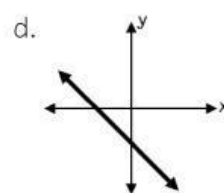
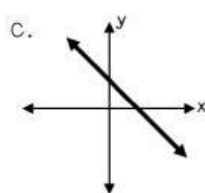
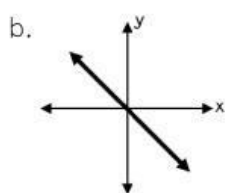
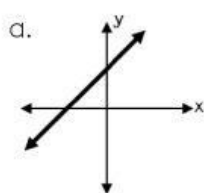
Is the table proportional? How do you know?

3. Create a graph to represent how much money Jackson has in his bank account based on the number of weeks he has been saving. Be sure to title the graph, each axis, and choose appropriate intervals for your graph.



Is the graph proportional? How do you know?

4. Which of the following could be the graph of the equation $y = -2x + 5$? How do you know?



#5-9: Match each equation with the description of its graph below.

$y = -10x$

$y = 2.5x - 7$

$y = \frac{7}{8}x + 1$

$y = 1.2x$

$y = -5x - 8$

5. My graph is non-proportional with a positive y-intercept. _____

6. My graph has a negative slope and passes through the origin. _____

7. My graph increases from left to right, and my "b" value is negative. _____

8. My graph contains the point (0, 0) and has a positive slope. _____

9. My graph has a negative "m" value and a negative "b" value. _____

10. Which table below represents a non-proportional relationship? Give at least two reasons that justify your choice.

Table A

x	y
0	0
3	1
12	4
21	7

Table B

x	y
0	3
3	4
12	7
21	10