

PROPORTIONAL RELATIONSHIPS: TABLES

Use your understanding of rate of change to answer the questions below.

1. Three pounds of bananas cost \$1.95. Which of the following is not true? $1.95 \div 3 = 0.65$

- a. One pound of bananas is \$0.75.
- b. The equation $y = 0.65x$ could be used to determine the cost of x pounds of bananas.
- c. Seven pounds of bananas is \$4.55.

2. As the x -values increase by 1, the y -values increase by 15. Which equation shows this?

- a. $y = 15 + x$
- b. $y = 15 - x$
- c. $y = 15x$

$y = kx$
 $y = 15x$

For each table below, determine the rate of change and write an equation.

3.

x	y
1	4
2	8
3	12
4	16

rate of change: 4

equation: $y = 4x$

4.

x	y
2	7
4	14
6	21
8	28

rate of change: 3.5

equation: $y = 3.5x$

5.

x	y
4	3
5	3.75
6	4.5
7	5.25

rate of change: 0.75

equation: $y = 0.75x$

6. James is saving \$15 per week in order to purchase a gaming console. Create a table to represent the relationship between x , the number of weeks and y , the total amount James has saved.

a. Write an equation to represent the situation.

$y = 15x$

b. James has a goal to save \$360 in 22 weeks. Will he meet his goal? Explain.

$15 \cdot 22 = \$330$ no

weeks	total \$
1	15
2	30
3	45
4	60

7. Mr. Brown asked his students create a representation with a rate of change of 2.5. Circle the students who correctly completed the task.

ELIJAH

$y = 2.5 + x$

ZANE $10 \div 4 = 2.5$

Four boxes of tissue cost \$10.

MARCO

$y = 2.5x$