

Name _____ Class _____ Date _____

Ch. 5.1-5.3 Quiz Review- Digits

1. Find the Constant of Proportionality.

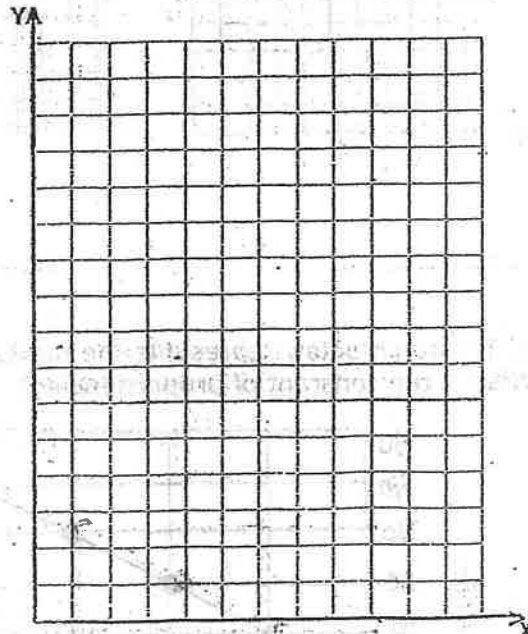
Pounds of Apples	Cost of Apples
0	0
3	2
6	4
9	6

Constant of Proportionality = _____

3. Write in an equation the represents the situation in #2.

Equation: _____

2. An airplane company rewards the customers who fly often with a frequent flyer program. The airline will give their customers 825 points for every 3 flights that they take. Draw a graph, which models this situation. Make sure to include all labels.



4. Multiple Choice: Circle your answer. What are the ways to tell if the graph represents a proportional relationship? Circle All that apply.

A: The graph will be a curved line.

C: The graph will be a straight line.

B: The graph will pass through the origin.

D: The graph will be a line that shows a negative relationship.

5. The amount of money earned W , in dollars, is a function of the number h of hours worked. Identify the dependent and independent variables.

Hours, h	3	4	5	6	7
Money Earned (\$), W	45	60	75	90	105

Independent: _____

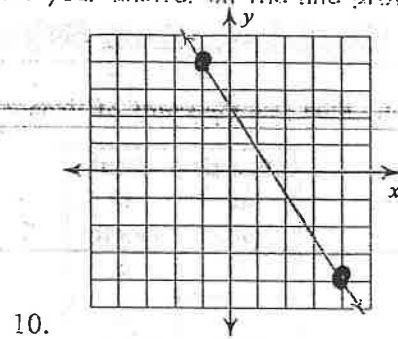
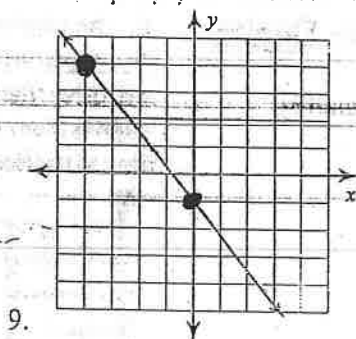
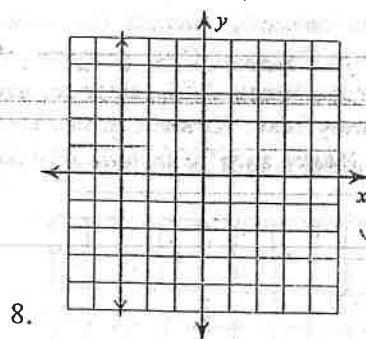
Dependent: _____

- #6-7: Find the slope of the line that passes through each pair of points. Simplify your answer. Place your answer on the line provided.

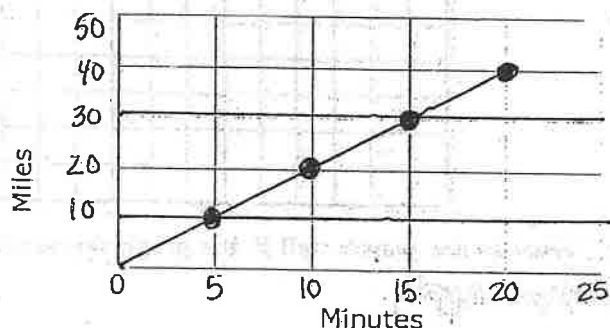
6. $(-5, -2)$, $(5, -5)$ _____

7. $(-5, 4)$, $(-4, -5)$ _____

#8-10: Find the slope of each line. Simplify your answer. Place your answer on the line provided.



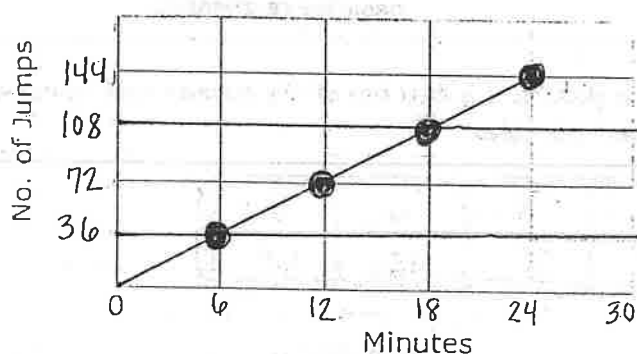
11. The graph below represents the number of miles Michael ran over time. What is the constant of proportionality?



11. A. What is the constant of proportionality:

B. Write an equation that models the line:

12. The graph below represents the number of vertical jumps Ava can do over time. What is the constant of proportionality?



12. A. What is the constant of proportionality:

B. Write an equation that models the line:

13- 14: Mason can make 24 omelets with 8 eggs. Mason's mom can make 30 omelets with 12 eggs. Write an equation that models how many omelets (t) each person can make with any number of eggs (g).

13. Equation to represent Mason: _____

14. Equation to represent Mason's mom: _____

Ch. 5.1-5.3 Quiz Review- Digits

1. Find the Constant of Proportionality.

4 4

Pounds of Apples	Cost of Apples
0	0
3	2
6	4
9	6

$$\frac{2}{3}$$

$$\frac{4}{6} = \frac{2}{3}$$

$$\frac{6}{9} = \frac{2}{3}$$

$$\frac{2}{3}$$

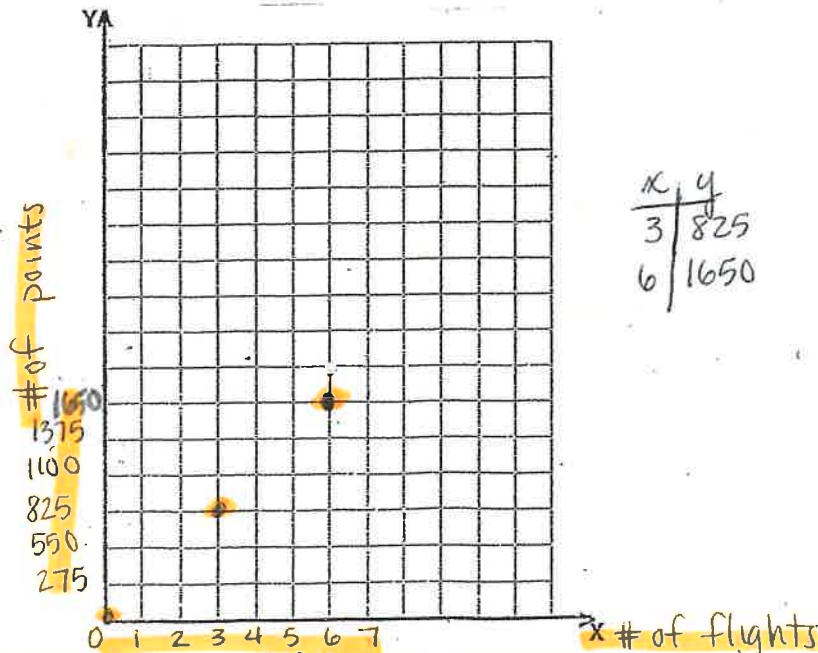
Constant of Proportionality = $\frac{2}{3}$

3. Write in an equation the represents the situation in #2.

Equation:

$$y = 275x$$

2. An airplane company rewards the customers who fly often with a frequent flyer program. The airline will give their customers 825 points for every 3 flights that they take. Draw a graph, which models this situation. Make sure to include all labels.



$$\begin{array}{r} x \quad y \\ 3 \quad 825 \\ 6 \quad 1650 \end{array}$$

4. Multiple Choice: Circle your answer. What ~~is one way~~ to tell if the graph represents a proportional relationship? Circle All that apply.

☐ A: The graph will be a curved line.

☒ C: The graph will be a straight line.

☒ B: The graph will pass through the origin.

☐ D: The graph will be a line that shows a negative relationship.

5. The amount of money earned W , in dollars, is a function of the number h of hours worked. Identify the dependent and independent variables.

Hours, h	3	4	5	6	7
Money earned (\$), W	45	60	75	90	105

Independent: hours

Dependent: money earned

- #6-7: Find the slope of the line that passes through each pair of points. Simplify your answer. Place your answer on the line provided.

6. $(-5, -2), (5, -5)$

$$-\frac{3}{10}$$

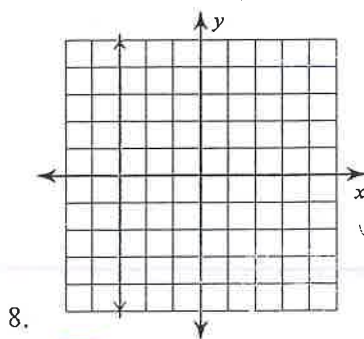
$$\frac{-2 - (-5)}{-5 - 5} = \frac{-2 + 5}{-5 + (-5)} = \frac{3}{-10}$$

7. $(-5, 4), (-4, -5)$

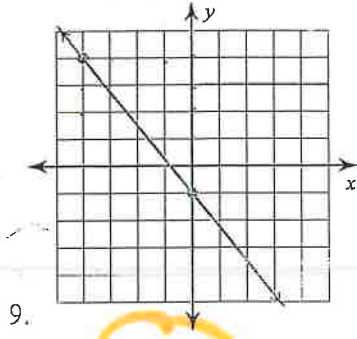
$$-9$$

$$\frac{4 - (-5)}{-5 - (-4)} = \frac{4 + 5}{-5 + 4} = \frac{9}{-1}$$

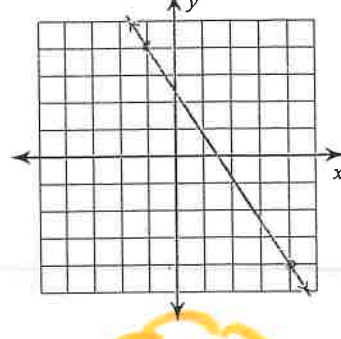
#8-10: Find the slope of each line. Simplify your answer. Place your answer on the line provided.



undefined

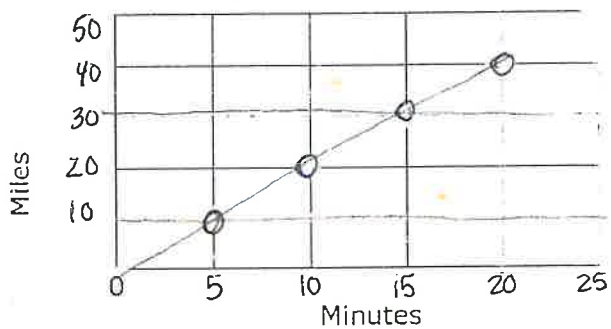


$-\frac{5}{4}$



$-\frac{8}{5}$

11. The graph below represents the number of miles Michael ran over time. What is the constant of proportionality?



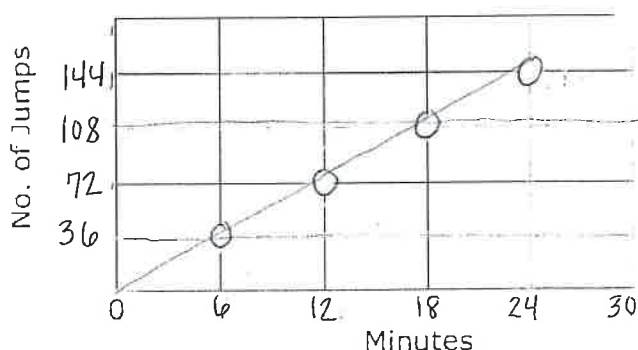
11. A. What is the constant of proportionality:

$\frac{y}{x} = \frac{10}{5} = 2$ miles per min.

B. Write an equation that models the line:

$y = 2x$

12. The graph below represents the number of vertical jumps Ava can do over time. What is the constant of proportionality?



12. A. What is the constant of proportionality:

$\frac{y}{x} = \frac{36}{6} = 6$ number of jumps per min.

B. Write an equation that models the line:

$y = 6x$

13- 14: Mason can make 24 omelets with 8 eggs. Mason's mom can make 30 omelets with 12 eggs. Write an equation that models how many omelets (t) each person can make with any number of eggs (g).

13. Equation to represent Mason: $\frac{24}{8} = t = 3g$

14. Equation to represent Mason's mom: $\frac{30}{12} = t = \frac{5}{2}g$

Dep = omelette Ind = eggs
 $\frac{\text{Dep}}{\text{Ind}}$