

Name: \_\_\_\_\_

# Weekly Math Mania

Topic: Proportional Relationships (Graphing Focus)

Date Due: Friday, October 1, 2015

Standards: [CCSS.Math.Content.7.RP.A.2a](#)

Decide whether two quantities are in a proportional relationship, e.g., by testing for equivalent ratios in a table or graphing on a coordinate plane and observing whether the graph is a straight line through the origin.

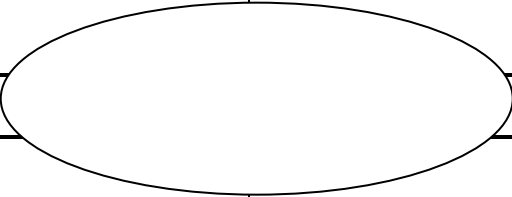
[CCSS.Math.Content.7.RP.A.2b](#)

Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships.

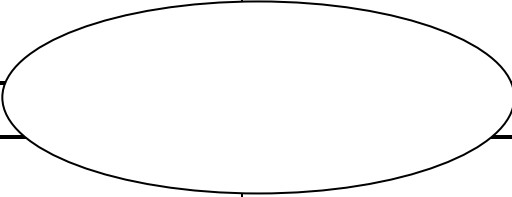
<b>Family Engagement</b>  Explain to your family member how to determine if a linear relationship is a direction variation from an equation, a table and a graph. Write out your explanation and their reaction.	<b>Words at Work</b> Slope Direct Variation Constant of Proportionality
<b>Independent Practice</b>  Page 77-78 problems 1-4 Page 85-86 problems 1-8 Please tear these pages out and staple it to the packet.	<b>Math in the Real World</b>  Complete the Real World Link "Recycling" on pages 73-74. Answer questions 1-3. Please <u>do not tear this page out</u> , I have provided a copy of it in this packet.
Choose either the online activity or the textbook activity.	
<b>Online Activity</b> Must do the Textbook Activity ☺ →	<b>Textbook Activity</b>  Complete the 21 <sup>st</sup> Century Career in Engineering on page 89-90. Answer the two questions and the Career Project. Tear it out and staple it to this packet.

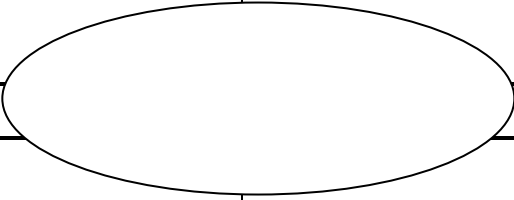
## **Family Engagement**

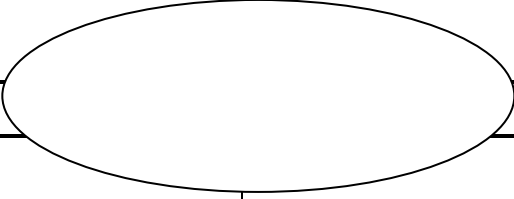
DEFINITION	CHARACTERISTICS
EXAMPLES/MODELS	NON-EXAMPLES



DEFINITION	CHARACTERISTICS
EXAMPLES/MODELS	NON-EXAMPLES



DEFINITION	CHARACTERISTICS
	
EXAMPLES/MODELS	NON-EXAMPLES

DEFINITION	CHARACTERISTICS
	
EXAMPLES/MODELS	NON-EXAMPLES

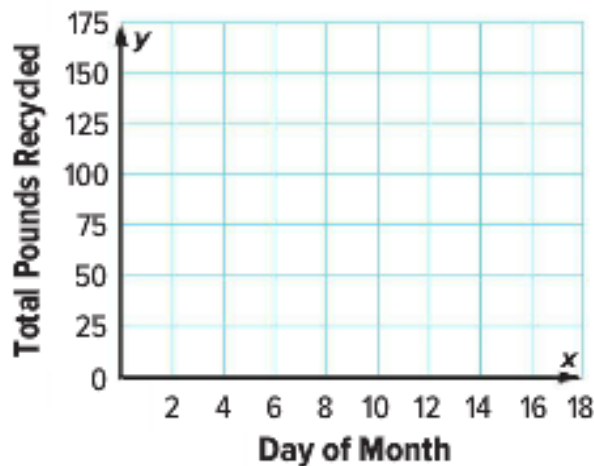


## Real-World Link

**Recycling** Hero Comics prints on recycled paper. The table shows the total number of pounds of recycled paper that has been used each day during the month.

Day of Month	Total Recycled (lbs)
3	36
5	60
6	72
7	84
12	144

- Graph the ordered pairs on the coordinate plane.



- Explain why the graph is linear. \_\_\_\_\_

- Use two points to find the constant rate of change.

Point 1: \_\_\_\_\_  $\frac{\text{change in pounds}}{\text{change in days}} \rightarrow \frac{\boxed{\phantom{00}} \text{ pounds}}{\boxed{\phantom{00}} \text{ days}}$

Point 2: \_\_\_\_\_  $\frac{\text{change in pounds}}{\text{change in days}} \rightarrow \frac{\boxed{\phantom{00}} \text{ pounds}}{\boxed{\phantom{00}} \text{ days}}$

So, the constant rate of change is  $\frac{24}{2}$  or  $\boxed{\phantom{00}}$  pounds per day.

## Textbook Activity

(Please write out the problem, show all of your work, and box your answer. Please be neat and organized.)