Name _____ Date _____

Skills Maintenance
Analyzing Slope

Activity 1

Look at the pairs of functions and think about how they look on a graph. Which of the lines is steeper? Circle the correct answer.

1. Line A: $y = 2x$

   Line B: $y = 3x$

   Which line has the steeper slope? (circle one)   A   or   B

2. Line A: $y = -2x$

   Line B: $y = -3x$

   Which line has the steeper slope? (circle one)   A   or   B

3. Line A: $y = \frac{1}{2}x$

   Line B: $y = 3x$

   Which line has the steeper slope? (circle one)   A   or   B

Activity 2

Tell which quadrants the line appears in on a coordinate graph. Circle the correct answer.

1. Where is the line $y = -x$?

   (circle one)   Quadrants II & IV   or   Quadrants I & III

2. Where is the line $y = \frac{1}{2}x$?

   (circle one)   Quadrants II & IV   or   Quadrants I & III

3. Where is the line $y = -\frac{3}{4}x$?

   (circle one)   Quadrants II & IV   or   Quadrants I & III

Name _____ Date _____

%÷ **Apply Skills**
≤× **Rate of Change**

Activity 1

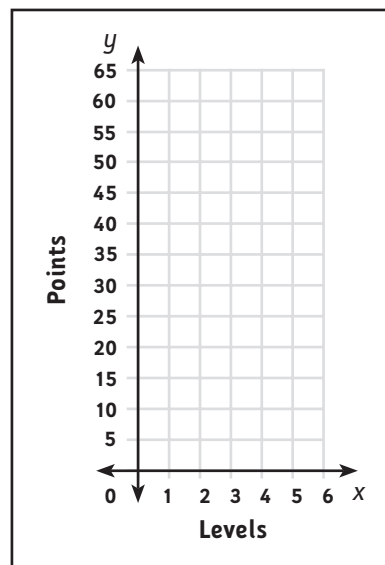**Tell who reached their goal first by completing the *x/y* tables and graphing the functions**.

1. The goal is to score 60 points. Marcus scores 15 points per level and Liza scores 20 points per level.

   Complete the *x/y* tables. The *x* stands for level and the *y* stands for points.

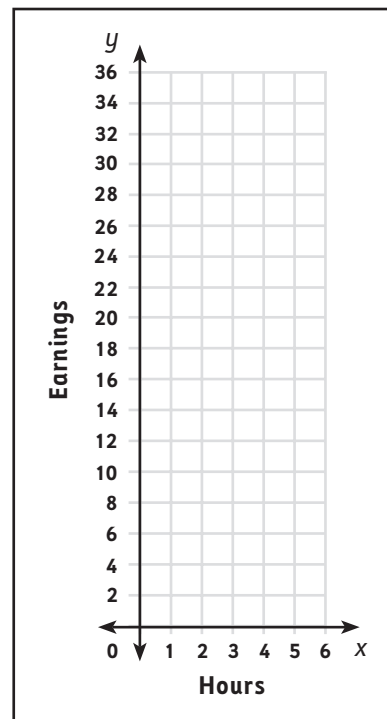| Marcus's Points		Liza's Points	
x	*y*	*x*	*y*
1	15	1	20
2		2	
3		3	

   Graph the functions. Who reached the goal first? _____

2. The goal is to make $30 babysitting. Hannah makes $6 per hour and Ali makes $5 per hour.

   Complete the *x/y* tables. The *x* stands for hours and the *y* stands for earnings.

| Hannah's Earnings		Ali's Earnings	
x	*y*	*x*	*y*
1	6	1	5
2		2	
3		3	
4		4	
5		5	
6		6	

   Graph the functions. Who reached the goal first? _____
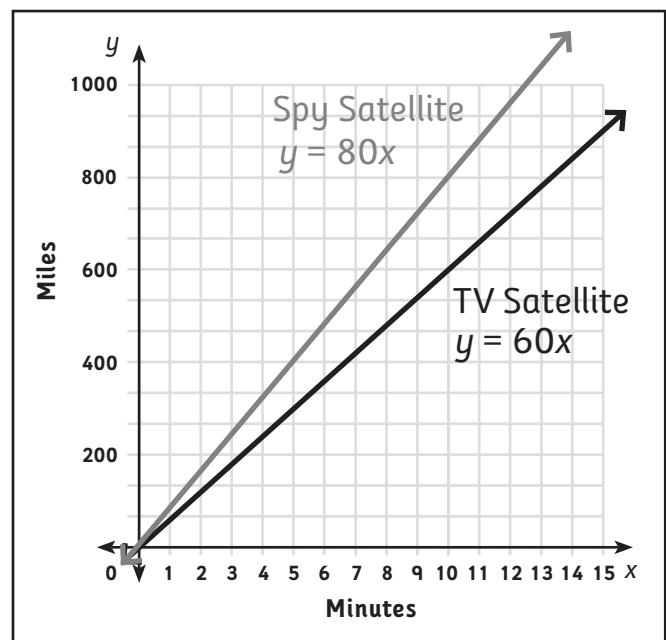
Name _____ Date _____

Problem-Solving Activity
The Advantage of Lines

**In each of the problems, interpret the graph based on two functions. Use
what you know about coordinate graphs to answer the questions.**

1. Janelle and her sister Tanya are leaving their house
in two different cars. They are both driving on the
same road, and they are going on a long trip.
Janelle is driving at 40 miles per hour and Tanya is
driving at 50 miles per hour. How much farther
ahead will Tanya be after 4 hours? What about after
6 hours?
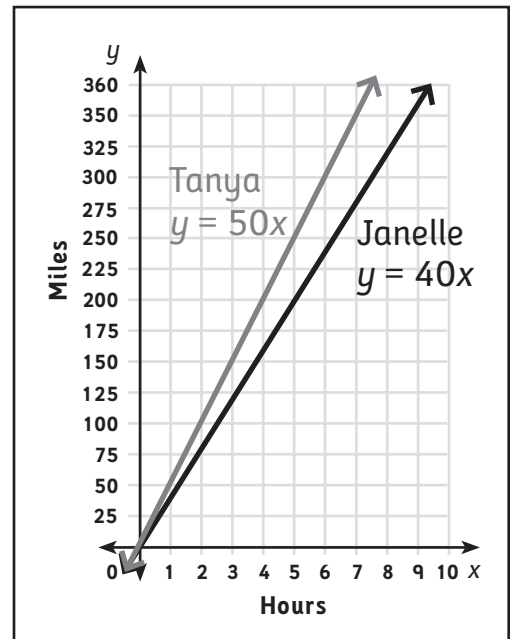
2. Satellites move around the Earth in
space. They travel at different speeds.
Some are faster than others. At noon a
TV satellite and a spy satellite are next
to each other in space. The spy satellite
is going 80 miles per minute and the
TV satellite is going 60 miles per
minute. How much farther will the spy
satellite be after 8 minutes? What
about after 12 minutes?

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3. Two gears are part of a large machine that makes dog food. If the gears didn't turn, there would be no dog food. Gear A makes 5 turns a minute and Gear B makes 7 turns a minute. When you turn on the machine, the gears are in the same starting place. How many more turns will Gear B make after 4 minutes? What about 8 minutes?

_____
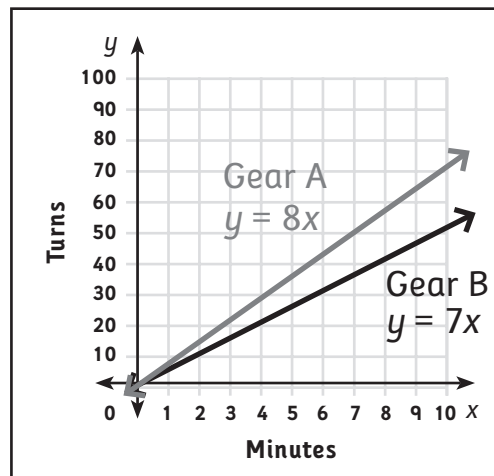
4. Two other machines in the factory pour the dog food into sacks and seal each one of them. They're ready to be put in boxes after that. The large machine pours and seals 15 sacks per minute. The small machine pours and seals 10 sacks per minute. How many more sacks will the large machine pour and seal after 3 minutes? What about after 8 minutes?

_____
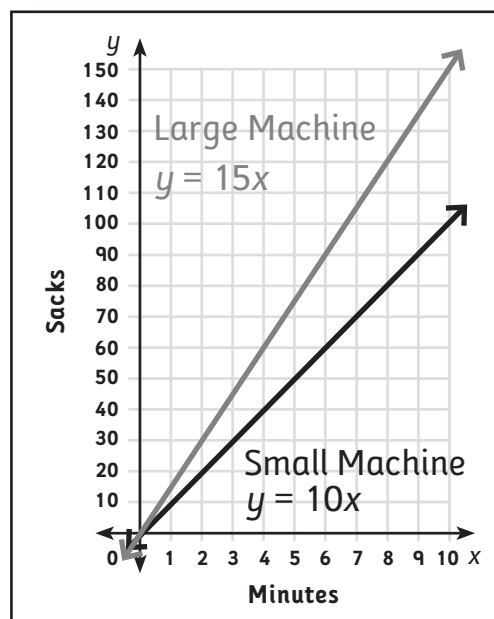
mBook Reinforce Understanding
Use the **mBook** *Study Guide* to review lesson concepts.