

Chapter 5	Ratios and Rates
Date:	5.4 Comparing and Graphing Ratios
Essential Question	How can you compare two ratios?
	Set up your composition book with the date and lesson title.

Composition Book

Compare the following ratios.

- 1) You mix 10 tablespoons of hot sauce and 2 cups of salsa in a green bowl so the ratio is 10:2.

You mix 12 tablespoons of hot sauce and 3 cups of salsa in an orange bowl so the ratio is 12:3.

Which mixture is hotter?

Green Bowl

hot sauce (tablespoons)	10	
Salsa (cups)	2	

Orange Bowl

hot sauce (tablespoons)	12	
Salsa (cups)	3	

What can we do to have the same number of cups in both bowls?

Composition Book

Compare the following ratios.

- 1) You mix 10 tablespoons of hot sauce and 2 cups of salsa in a green bowl so the ratio is 10:2.

You mix 12 tablespoons of hot sauce and 3 cups of salsa in an orange bowl so the ratio is 12:3.

Which mixture is hotter?

Green Bowl

hot sauce (tablespoons)	10×3	30
Salsa (cups)	2×3	6

Orange Bowl

hot sauce (tablespoons)	12×2	24
Salsa (cups)	3×2	6

The green bowl is hotter because it has more tablespoons of hot sauce in the same number of cups of salsa than the orange bowl.

Complete number 1 on you notes page.

- 1) You mix 3 teaspoons of sugar and 8 ounces of sweet tea in a green glass so the ratio is 3:8.

You mix 4 teaspoons of sugar and 12 ounces of sweet tea in an orange glass so the ratio is 4:12.

Which tea is sweeter?

Green Glass

sugar (teaspoons)	3×3	9
sweet tea (ounces)	8×3	24

Orange Glass

sugar (teaspoons)	4×2	8
sweet tea (ounces)	12×2	24

The green glass is sweeter because it has more teaspoons of sugar in the same number of ounces of tea than the orange glass.

Complete number 2 in your composition book.

2) Which bag of dog food is the better buy?

20lb. for \$17.20

30 lb. for \$25.20

cost	$17.20 \div 20$	0.86
pounds	$20 \div 20$	1

cost	$15.20 \div 30$	0.84
pounds	$30 \div 30$	1

The 30 pound bag of dog food is a better buy because each pound in the 20 pound bag is \$0.86 and each pound in the 30 pound bag is \$0.84.

Complete number 2 on you notes page.

2) Which bag of cat food is the better buy?

15lb. for \$11.40

25 lb. for \$19.25

cost	$11.40 \div 15$	0.76
pounds	$15 \div 15$	1

cost	$19.25 \div 25$	0.77
pounds	$25 \div 25$	1

The 15 pound bag of cat food is a better buy because each pound in the 15 pound bag is \$0.76 and each pound in the 25 pound bag is \$0.77.

Complete number 3 in your composition book.

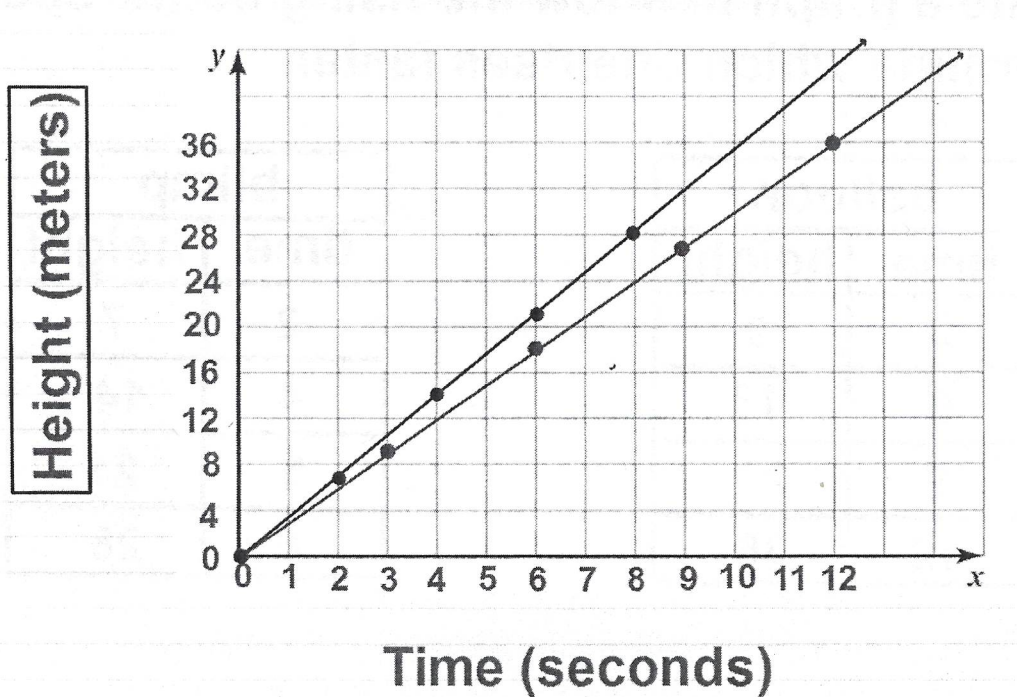
- 3a) A hot air balloon rises 9 meters every 3 seconds.
A blimp rises 7 meters every 2 seconds.
- 3b) Create a graph to show the rising items' speeds and determine which one rises faster.

balloon	
time	height
3	9
6	18
9	27
12	36

blimp	
time	height
2	7
4	14
6	21
8	28

3b) Create a graph to show the rising items' speeds and determine which one rises faster.

Rising Speeds



blimp
hot air
balloon

The blimp rises faster because the line is steeper.

Complete number 3 on your notes page.

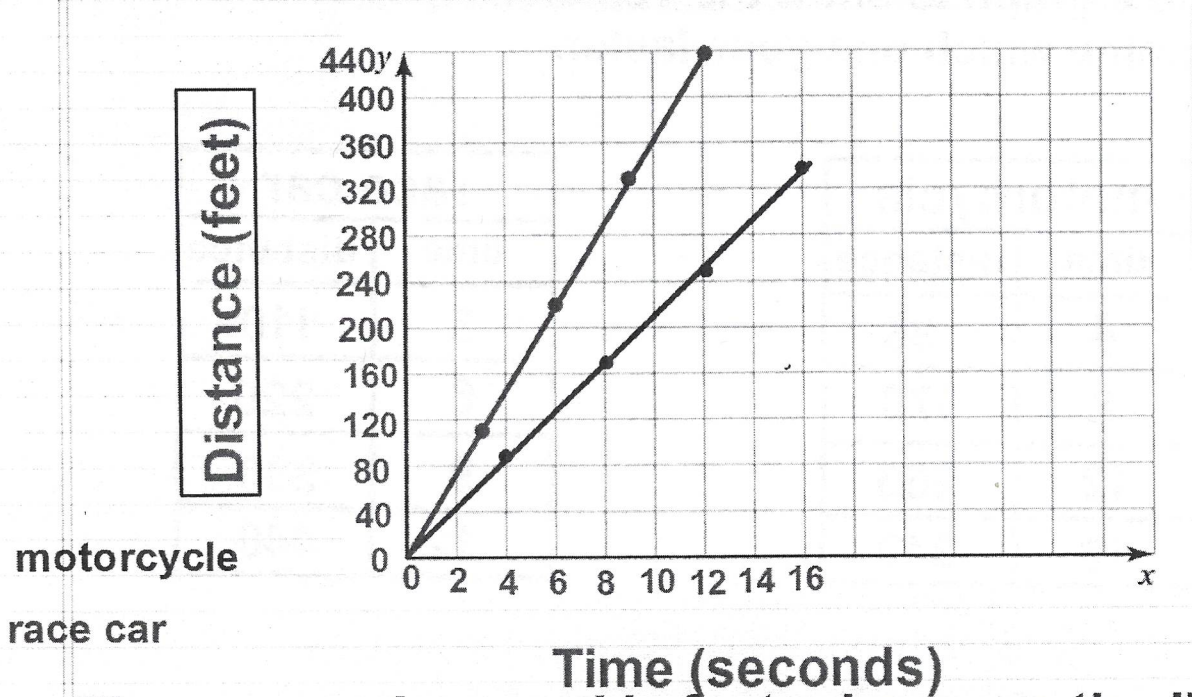
- 3a) A motorcycle goes 85 feet in 4 seconds. A race car goes 60 feet in 3 seconds. Create a table for each vehicle.
- 3b) Create a graph to show the vehicles' speeds and determine which one goes faster.

motorcycle	
time	distance
4	85
8	170
12	255
16	340

race car	
time	distance
3	110
6	220
9	330
12	440

3b) Create a graph to show the rising items' speeds and determine which one goes faster.

Speed of Vehicles



motorcycle

race car

The race car's speed is faster because the line is steeper.