NAME   DATE   PERIOD

Unit 2, Lesson 3: More about Constant of Proportionality

1. Noah is running a portion of a marathon at a constant speed of 6 miles per hour.

Complete the table to predict how long it would take him to run different distances at that speed, and how far he would run in different time intervals.

time in hours	miles traveled at 6 miles per hour
1	
$\frac{1}{2}$	
$1\frac{1}{3}$	
	$1\frac{1}{2}$
	9
	$4\frac{1}{2}$

2. One kilometer is 1000 meters.

a. Complete the tables. What is the interpretation of the constant of proportionality in each case?

meters	kilometers
1,000	1
250	
12	
1	

kilometers	meters
1	1,000
5	
20	
0.3	

The constant of proportionality tells us that: The constant of proportionality tells us that:

b. What is the relationship between the two constants of proportionality?

3. Jada and Lin are comparing inches and feet. Jada says that the constant of proportionality is 12. Lin says it is $\frac{1}{12}$. Do you agree with either of them? Explain your reasoning.

4. The area of the Mojave desert is 25,000 square miles. A scale drawing of the Mojave desert has an area of 10 square inches. What is the scale of the map?
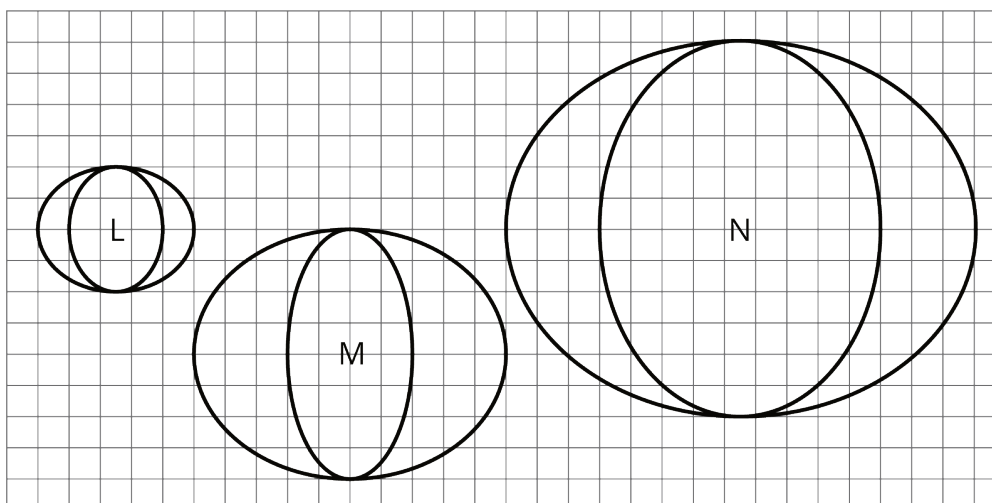
(from Unit 1, Lesson 12)

5. Which of these scales is equivalent to the scale 1 cm to 5 km? Select **all** that apply.

   A. 3 cm to 15 km
   B. 1 mm to 150 km
   C. 5 cm to 1 km
   D. 5 mm to 2.5 km
   E. 1 mm to 500 m

(from Unit 1, Lesson 11)

6. Which one of these pictures is not like the others? Explain what makes it different using ratios.

(from Unit 2, Lesson 1)