

Unit 2, Lesson 6: Using Equations to Solve Problems

1. A car is traveling down a highway at a constant speed, described by the equation $d = 65t$, where d represents the distance, in miles, that the car travels at this speed in t hours.

a. What does the 65 tell us in this situation?

b. How many miles does the car travel in 1.5 hours?

c. How long does it take the car to travel 26 miles at this speed?
2. Elena has some bottles of water that each holds 17 fluid ounces.

a. Write an equation that relates the number of bottles of water (b) to the total volume of water (w) in fluid ounces.

b. How much water is in 51 bottles?

c. How many bottles does it take to hold 51 fluid ounces of water?
3. There are about 1.61 kilometers in 1 mile. Let x represent a distance measured in kilometers and y represent the same distance measured in miles. Write two equations that relate a distance measured in kilometers and the same distance measured in miles.
(from Unit 2, Lesson 5)
4. In Canadian coins, 16 quarters is equal in value to 2 toonies.

number of quarters	number of toonies
1	
16	2
20	
24	

- a. Fill in the table.
- b. What does the value next to 1 mean in this situation?

(from Unit 2, Lesson 2)

5. Each table represents a proportional relationship. For each table:

- a. Fill in the missing parts of the table.
- b. Draw a circle around the constant of proportionality.

x	y
2	10
	15
7	
1	

a	b
12	3
20	
	10
1	

m	n
5	3
10	
	18
1	

(from Unit 2, Lesson 2)

6. Describe some things you could notice in two polygons that would help you decide that they were not scaled copies.

(from Unit 1, Lesson 4)