Lesson 6 Homework Practice

Solve Proportional Relationships

Solve each proportion.

1. $\dfrac{b}{5} = \dfrac{8}{16}$

2. $\dfrac{18}{x} = \dfrac{6}{10}$

3. $\dfrac{t}{6} = \dfrac{30}{36}$

4. $\dfrac{11}{10} = \dfrac{n}{14}$

5. $\dfrac{2.5}{35} = \dfrac{2}{d}$

6. $\dfrac{3.5}{18} = \dfrac{z}{36}$

7. $\dfrac{0.45}{4.2} = \dfrac{p}{14}$

8. $\dfrac{2.4}{6} = \dfrac{2.8}{s}$

9. $\dfrac{3.6}{k} = \dfrac{0.2}{0.5}$

For Exercises 10–12, assume all situations are proportional.

10. **CLASSES** For every girl taking classes at the martial arts school, there are 3 boys who are taking classes at the school. If there are 236 students taking classes, write and solve a proportion to predict the number of boys taking classes at the school.

11. **BICYCLES** An assembly line worker at Rob's Bicycle factory adds a seat to a bicycle at a rate of 2 seats in 11 minutes. Write a proportion relating the number of seats s to the number of minutes m. At this rate, how long will it take to add 16 seats? 19 seats?

12. **PAINTING** Lisa is painting a fence that is 26 feet long and 7 feet tall. A gallon of paint will cover 350 square feet. Write and solve a proportion to determine how many gallons of paint Lisa will need.
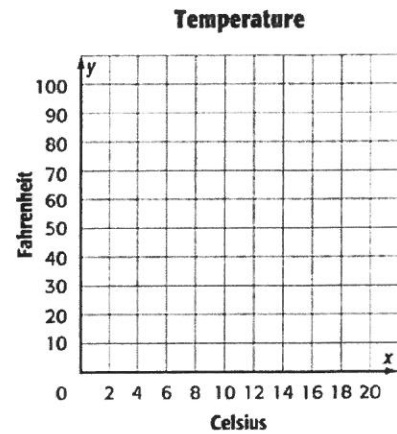
Lesson 5 Homework Practice

Graph Proportional Relationships

For Exercises 1 and 2, determine whether the relationship between the two quantities shown in each table are proportional by graphing on the coordinate plane. Explain your reasoning.
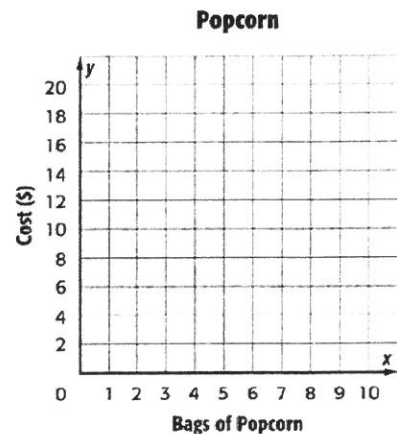
1.

Temperature (Degrees)	
Celsius	Fahrenheit
0	32
5	41
10	50
15	59
20	68

Temperature

2.

Popcorn	
Bags of Popcorn	Cost ($)
0	0
1	4
2	8
3	12
4	16

Popcorn

3. **MOVIES** An online DVD rental company charges $15 a month for unlimited rentals. Determine whether the total paid after each month is proportional to number of months by graphing on the coordinate plane. Explain your reasoning.

Online DVD Rentals