Math 702 Lesson 1.6 Extra 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.

13 USAGE A 12-ounce bottle of shampoo lasts Enrique 16 weeks. How long would you expect an 18-ounce bottle of the same brand to last him?

14 COMPUTERS About 13 out of 20 homes have a personal computer. On a street with 60 homes, how many would you expect to have a personal computer?

15 SNACKS A 6-ounce package of fruit snacks contains 45 pieces. How many pieces would you expect in a 10-ounce package?

16 TYPING Ingrid types 3 pages in the same amount of time that Tanya types 4.5 pages. If Ingrid and Tanya start typing at the same time, how many pages will Tanya have typed when Ingrid has typed 11 pages?

17 SCHOOL A grading machine can grade 48 multiple-choice tests in 1 minute. How long will it take the machine to grade 300 tests?

18 AMUSEMENT PARKS The waiting time to ride a roller coaster is 20 minutes when 150 people are in line. How long is the waiting time when 240 people are in line?