Name: _____ Period: _____

Ratio & Proportion Review

Unit 8

Write each ratio as a simplified fraction.

1. **36 : 8**
2. **18 to 24**
3. **18 to 6**
4. **25 : 45**
5. **36 to 56**
6. **27 : 54**

Write each ratio as a simplified fraction. Use the table below for #7-8.

CLASS	# OF GIRLS	# OF STUDENTS
A1	15	35
A2	20	36
A3	10	30

7. **Number of girls in A2 to number of students in A1.**
8. **Number of students in A2 to number of students in A3.**

Find each unit rate. If necessary, round to the nearest tenth.

9. **759 miles in 3 hours**
10. **20 calls in 5 hours**
11. **$95 for 3 pairs of pants**

Find the unit price at each store for each item and tell which store has the best price.

12. **Store A has 2-liter bottles of soda on sale for 5 bottles of soda for $7 . Store B has 2-liter bottles of soda for sale for 4 bottles of soda for $5.**
13. **Store A has cookies on sale for $3.50 for a package of 45 cookies. Store B has cookies on sale for $0.84 for a dozen. Which has the better price?**

Solve the following proportions. Round to the nearest tenth if necessary.

14. $\frac{6}{8.2} = \frac{x}{17}$
15. $\frac{3}{x} = \frac{9}{12}$

16. $\frac{2.1}{7} = \frac{x}{3}$

17. $\frac{15}{26} = \frac{8}{x}$

Use proportions to convert the following customary units. Round to the nearest tenth if necessary.

18. **1, 275 feet = _____ mile**

19. **17 gallons = _____ quarts**

20. **76 inches = _____ feet**

21. **3 cups = _____ tablespoons**

Customary Conversions

8 fluid ounces = 1 cup
2 cups = 1 pint
2 pints = 1 quart
4 quarts = 1 gallon
8 pints = 1 gallon
3 teaspoons = 1 tablespoon
16 tablespoons = 1 cup
16 fluid ounces = 1 pint
16 ounces = 1 pound
5,280 feet = 1 mile
12 inches = 1 foot

Find the proportion that is set up <u>correctly</u>.

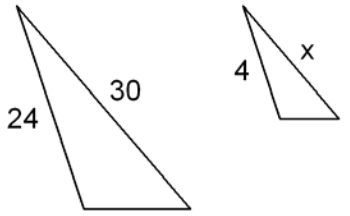
22.

a. $\frac{30}{x} = \frac{4}{24}$

b. $\frac{24}{x} = \frac{30}{4}$

c. $\frac{4}{x} = \frac{30}{24}$

d. $\frac{24}{4} = \frac{30}{x}$



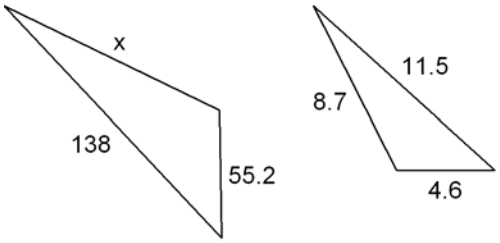
23.

a. $\frac{8.7}{55.2} = \frac{11.5}{x}$

b. $\frac{138}{11.5} = \frac{x}{8.7}$

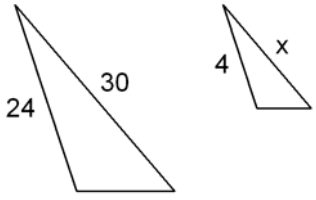
c. $\frac{138}{8.7} = \frac{x}{11.5}$

d. $\frac{4.6}{55.2} = \frac{x}{8.7}$

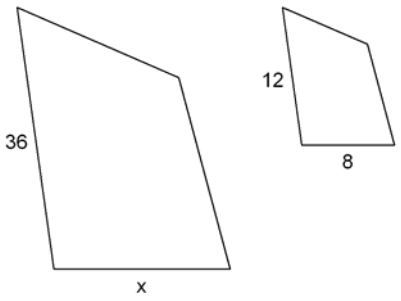


Find the length of the missing side of each similar shape. Round to the nearest tenth if necessary.

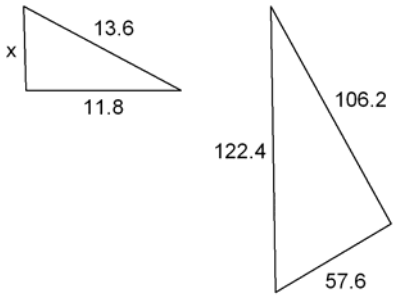
24.



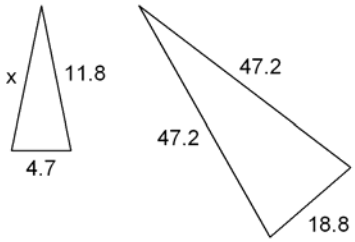
25.


36
x
12
8

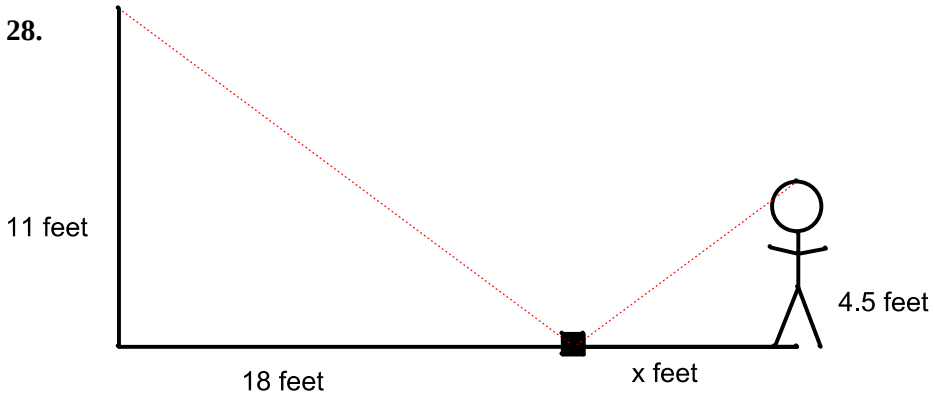
26.


x
13.6
11.8
106.2
122.4
57.6

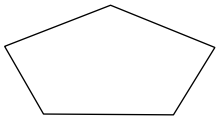
27.

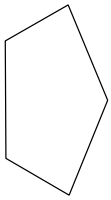

x
11.8
4.7
47.2
47.2
18.8

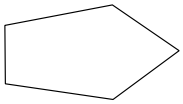
28.

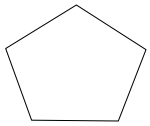

11 feet
4.5 feet
18 feet
x feet

Tell which shape is similar to the given shape.

29. 

a. 

b. 

c. 

d. 

Use the information given to solve the scale factor problem.

30. A model train is 5 inches tall. If it was built with a scale of 1 inch : 2 feet, then how tall is the real train?

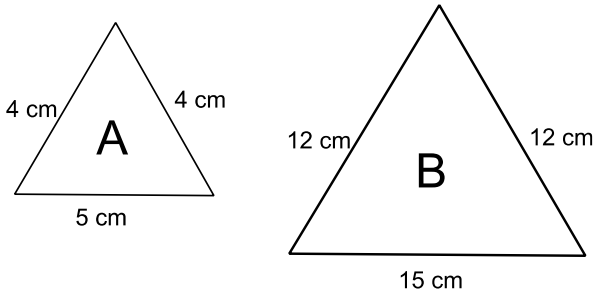
31. A statue that is 12 feet tall casts a shadow that is 9 feet long. Find the height of a lawn ornament that casts a 3 foot shadow.

32. A model satellite has a scale of 1 cm : 3 m. If the real satellite is 12 m wide, then how wide is the model satellite?

Find the scale factor of the following.

33. A to B (small to large) Scale Factor:

B to A (large to small) Scale Factor:



34. Find model : actual. A commuter car is 4.5 feet tall. A model of the same car is 3 inches tall.

35. Find actual : model. A painting of a mountain is 4 feet tall. The actual mountain is 5280 feet tall.