

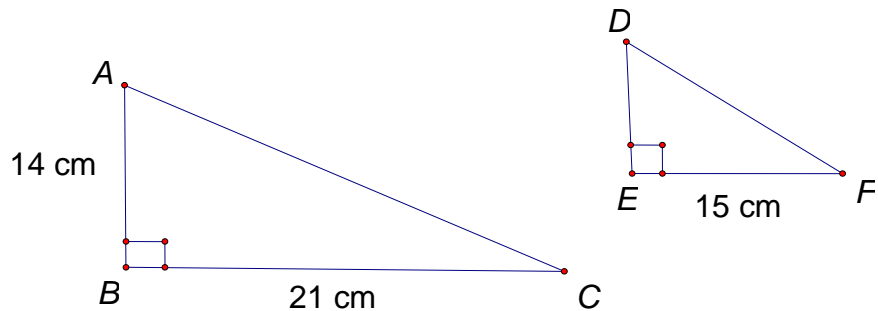
Ratio and Proportion

Long-Term Memory Review

Review 1

1. Provide a complete response to each of the following:
 - a. A ratio compares two _____.
 - b. A proportion sets two ratios _____ to each other.
 - c. What are similar figures?

2. Draw two similar figures.



3. The triangles in the figure above are similar.
 - a. _____ and _____ are measures of corresponding sides.
 - b. _____ and _____ are measures of another pair of corresponding sides.

4. Find the value of x .
A. 7 cm B. 8 cm C. 10 cm D. 11 cm

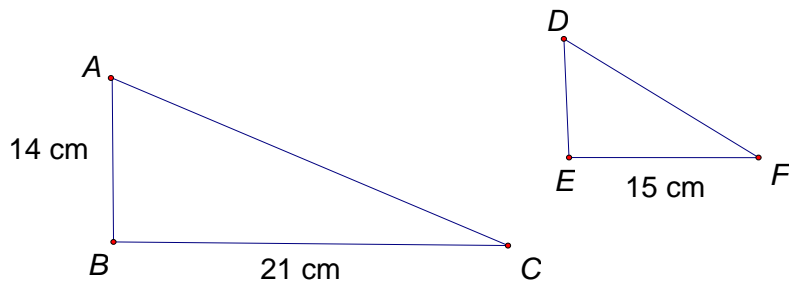
Ratio and Proportion

Long-Term Memory Review

Review 2

1. Provide a complete response to each of the following:
 - a. A ratio compares two _____.
 - b. A proportion sets two ratios _____ to each other.
 - c. What are similar figures?

2. Draw two similar figures.



3. USE the figure above: We know that $\triangle ABC \sim \triangle DEF$. Write four different proportions that can be used to solve for x .

$$\frac{15 \text{ cm}}{x} = \frac{21 \text{ cm}}{14 \text{ cm}}$$

$$\frac{x \text{ cm}}{14 \text{ cm}} = \frac{15 \text{ cm}}{21 \text{ cm}}$$

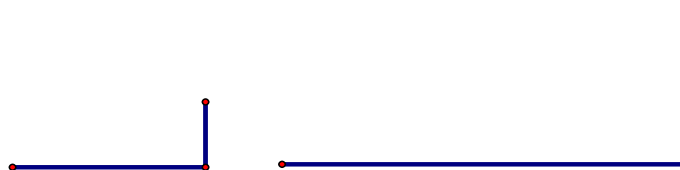
One way

Second way

Third way

Fourth way

4. A man who is 6 feet tall casts a shadow that is 11 feet long. At the same time, a tree casts a shadow that is 33 feet long. Use the drawing below to help you find the height of the tree? Label the following: a) tree, b) tree's shadow, c) man, and d) man's shadow.



Ratio and Proportion

Long-Term Memory Review

Review 3

1. Provide a complete response to each of the following:

- a. A ratio compares two _____.
- b. A proportion sets two ratios _____ to each other.
- c. What are similar figures?

2. Draw two similar figures.

3. In one season, a city's basketball team won 60 games and lost 20 games.

- a. What is the ratio of games won to games lost?

ANSWER: This question can be written in following different ways:

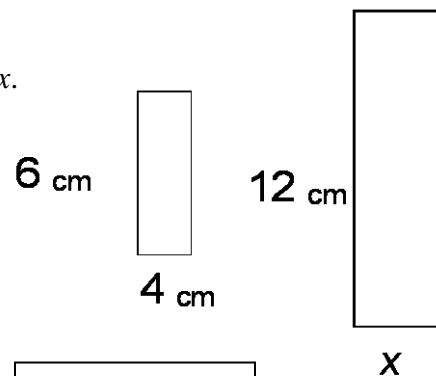
60 won to 20 lost; or 60 won: 20 lost: or $\frac{60 \text{ won}}{20 \text{ lost}}$

- b. What is the total number of games played? _____
- c. What is the ratio of games won to games played? _____
- d. What is the ratio of games lost to games played? _____

4. There are only dogs and cats at the local animal rescue center. The ratio of dogs to cats being adopted today at the animal rescue center is 7 to 5. If there are 120 total animals up for adoption, how many dogs are there?

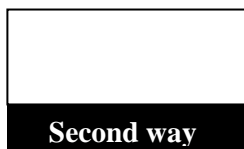
5. The rectangles at the right are similar.

Write four different proportions that can be used to solve for x .



$$\frac{12 \text{ cm}}{x} = \frac{6 \text{ cm}}{4 \text{ cm}}$$

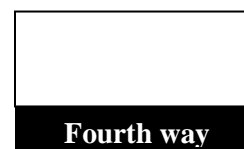
One way



Second way

$$\frac{12 \text{ cm}}{6 \text{ cm}} = \frac{x}{4 \text{ cm}}$$

Third way



Fourth way

Ratio and Proportion

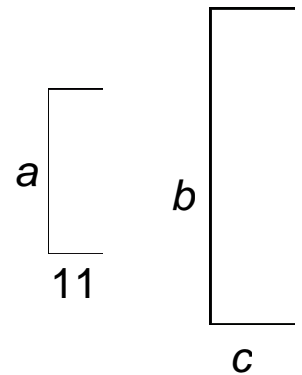
Long-Term Memory Review

Review 4

1. Provide a complete response to each of the following:
 - a. A ratio compares two _____.
 - b. A proportion sets two ratios _____ to each other.
 - c. What are similar figures?

2. Draw two similar figures.

USE the figure on the right for questions 3-4. The two rectangles at the right are similar.



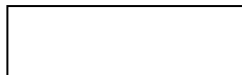
3. Write four different proportions that can be used to solve for c ?

$$\frac{a}{11} = \frac{b}{c}$$

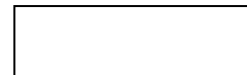
One way

$$\frac{a}{b} = \frac{11}{c}$$

Second way



Third way



Fourth way

4. What is the value of c ?

A. $c = \frac{11b}{a}$

B. $c = \frac{11a}{b}$

C. $c = \frac{b}{11a}$

D. $c = \frac{a}{b}$

5. In one season, a city's basketball team won 60 games and lost 20 games.
 - a. What is the total number of games played? _____
 - b. What is the ratio of games won to games played? _____
 - c. What is the ratio of games lost to games played? _____
 - d. In the city, a baseball team had the same ratio of wins to losses as the above basketball team, but they played 120 total games during the season. How many games did the baseball team win and lose?

6. A new winter coat is on sale for 20% off the original price. If sale price is \$176 after the 20% discount, then what is the original price of the coat? Use the proportion below to help you solve the problem.

$$\frac{80 \text{ sale price (\% paid)}}{100 \text{ total price (\% original)}} = \frac{\text{sale price (\$paid)}}{\text{total price (\$original)}}$$



Ratio and Proportion

Long-Term Memory Review

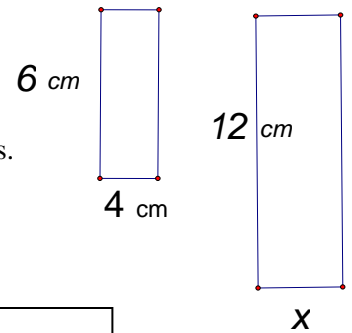
Quiz

1. Provide a complete response to the following questions:
 - a. A ratio compares two _____.
 - b. A proportion sets two ratios _____ to each other.
 - c. What are similar figures?
 - d. Draw two similar figures.

Use the figure on the right for questions 2-4.

2. The rectangles are similar.

- a. _____ and _____ are measures of corresponding sides.
- b. _____ and _____ are measures of the other pair of corresponding sides.



3. Write four different proportions that can be used to solve for x ?

$$\frac{12 \text{ cm}}{x} = \frac{6 \text{ cm}}{4 \text{ cm}}$$

One way

$$\frac{12 \text{ cm}}{6 \text{ cm}} = \frac{x}{4 \text{ cm}}$$

Second way



Third way



Fourth way

4. Find the value of x .

- A. 2 cm B. 8 cm C. 10 cm D. 18 cm

5. A new leather coat is on sale for 20% off the original price. If sale price is \$160 after the 20% discount, then what is the original price of the coat? Use the proportion below to help you solve the problem.

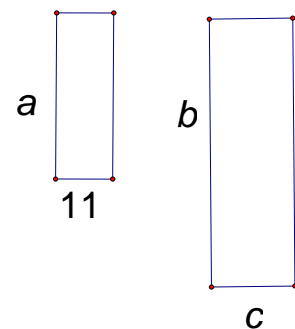


$$\frac{80 \text{ sale price (\% paid)}}{100 \text{ total price (\% original)}} = \frac{\text{sale price (\$paid)}}{\text{total price (\$original)}}$$

6. A man who is 6 feet tall casts a shadow that is 11 feet long. At the same time, a tree casts a shadow that is 33 feet long. Draw a picture to represent this situation and find the height of the tree? Label the diagram.

7. The two rectangles at the right are similar. What is the value of c ?

- A. $c = \frac{11b}{a}$ B. $c = \frac{11a}{b}$ C. $c = \frac{b}{11a}$ D. $c = \frac{a}{b}$



Ratio and Proportion

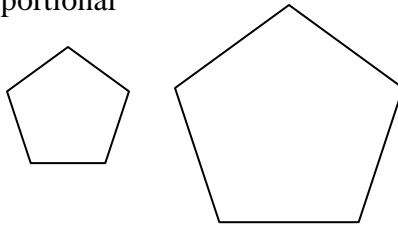
Long-Term Memory Review

ANSWERS

Review 1 - Answers

- numbers
 - equal
 - Similar figures are figures that are the same shape, but may be different sizes; angles are congruent, sides are proportional

- Answers may vary.

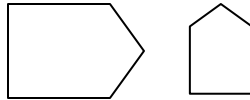


- 21 and 15
 - 14 and x
- C. 10 cm

Review 2 - Answers

- numbers
 - equal
 - Similar figures are figures that are the same shape, but may be different sizes; angles are congruent, sides are proportional

- Answers may vary.



3. $\frac{15 \text{ cm}}{x} = \frac{21 \text{ cm}}{14 \text{ cm}}$ $\frac{x \text{ cm}}{15 \text{ cm}} = \frac{14 \text{ cm}}{21 \text{ cm}}$ $\frac{x \text{ cm}}{14 \text{ cm}} = \frac{15 \text{ cm}}{21 \text{ cm}}$ $\frac{14 \text{ cm}}{x \text{ cm}} = \frac{21 \text{ cm}}{15 \text{ cm}}$

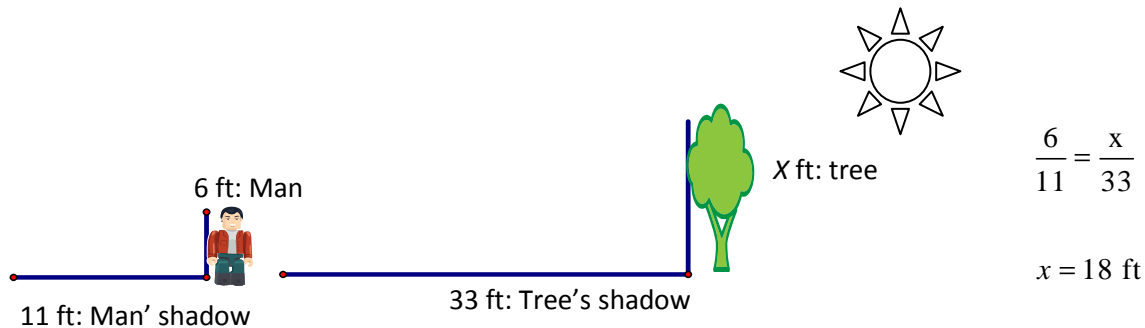
One way

Second way

Third way

Fourth way

-
-
-
-



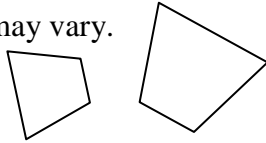
Ratio and Proportion

Long-Term Memory Review

Review 3 - Answers

- numbers
 - equal
 - Similar figures are figures that are the same shape, but may be different sizes; angles are congruent, sides are proportional

2. Answers may vary.



- 60 won to 20 lost
 - 60:80
 - $\frac{20}{80}$

4. $\frac{\text{dog}}{\text{total}} = \frac{7}{12}$ $\frac{x \text{ (dog)}}{120} = \frac{7}{12}$ $x = 70 \text{ dogs}$

5. $\frac{12 \text{ cm}}{x} = \frac{6 \text{ cm}}{4 \text{ cm}}$ $\frac{x \text{ cm}}{12 \text{ cm}} = \frac{4 \text{ cm}}{6 \text{ cm}}$ $\frac{12 \text{ cm}}{6 \text{ cm}} = \frac{x \text{ cm}}{4 \text{ cm}}$ $\frac{6 \text{ cm}}{12 \text{ cm}} = \frac{4 \text{ cm}}{x \text{ cm}}$

One way

Second way

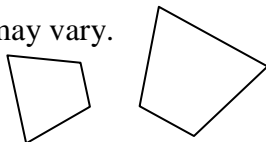
Third way

Fourth way

Review 4 - Answers

- numbers
 - equal
 - Similar figures are figures that are the same shape, but may be different sizes; angles are congruent, sides are proportional

2. Answers may vary.



3. $\frac{a}{11} = \frac{b}{c}$ $\frac{a}{b} = \frac{11}{c}$

$\frac{11}{a} = \frac{c}{b}$

$\frac{b}{a} = \frac{c}{11}$

One way

Second way

Third way

Fourth way

Ratio and Proportion

Long-Term Memory Review

4. A. $c = \frac{11b}{a}$

- 5.
- What is the total number of games played? **80**
 - What is the ratio of games won to games played? **60 to 80**
 - What is the ratio of games lost to games played? $\frac{20}{80}$
 - In the city, a baseball team had the same ratio of wins to losses as the above basketball team, but they played 120 total games during the season. How many games did the baseball team win and lose?

$$\frac{3}{4} = \frac{x}{120}; \text{ won } 90, \text{ lost } 30$$

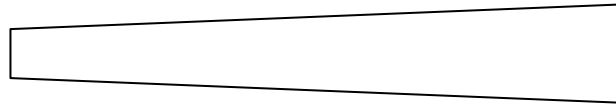
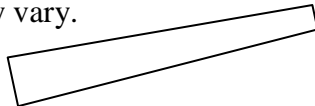
6.

$$\frac{80}{100} = \frac{176}{x}; 80x=17600; x=\$220$$

Quiz - Answers

- numbers
 - equal
 - Similar figures are figures that are the same shape, but may be different sizes; angles are congruent, sides are proportional

2. Answers may vary.



3. $\frac{12}{x} = \frac{6}{4}$

$$\frac{12}{6} = \frac{x}{4}$$

$$\frac{x}{12} = \frac{4}{6}$$

$$\frac{6}{12} = \frac{4}{x}$$

One way

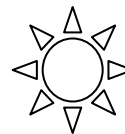
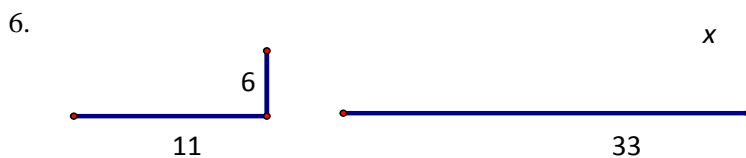
Second way

Third way

Fourth way

4. B. 8 cm

5. $\frac{80}{100} = \frac{160}{x}; 80x=1600; x=\200



$$\frac{6}{11} = \frac{x}{33}; 11x=198; x=18; \text{ The tree is } 18 \text{ ft. tall}$$

7. A. $c = \frac{11b}{a}$