

## 7<sup>th</sup> Grade Assignment – Week #15

### Individual Work

- Do as much as you can with the problems on **Ratios (Part I) Sheet #7**.
- **Get ready for the test!** Especially look over problems from Sheets #5, #6, and #7. You will take the test at the end of next week.

Group Assignments: Here are some options for Tuesday and Thursday's group work. Together, decide what you want to work on.

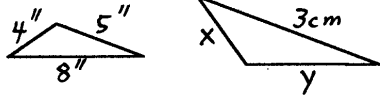
- Work on any of the puzzle problems from last week that you didn't finish.  
(Note: I will go over the solution to the Jug Puzzle in Wednesday's lecture.)
- 1) *Puzzle!* Find the ages of three children, such that they multiply to 200 and add to 18.
- 2) *Puzzle!* Find three numbers that multiply to 2 and add to 10.
- Work together on the Ratios Practice Test (see next page).  
**Please keep in mind that the actual test will not be just like the practice test.** You still need to make sure you understand all the problems from the workbook.

## Ratios, Part I – Practice Test

- 1) Given that the ratio of bananas to guavas in a class is 4 to 3...
  - a) What are the three thoughts associated with this ratio? (Write each thought only as an equation.)
  
  
  
  
  
  
  
  
  
  
  - b) How many bananas are there if there are 12 guavas?
  
  
  
  
  
  
  
  
  
  
- 2) A rectangle measures 11 inches by 20 inches. Write the four ways to express the ratio of its measurements.
  - a)  $J:G = 7:3$
  
  
  
  
  
  
  
  
  
  
  - b)  $B:C = 1.2:1$
  
  
  
  
  
  
  
  
  
  
- 3) Give the reciprocal of each ratio.
  - a)  $J:G = 7:3$
  
  
  
  
  
  
  
  
  
  
  - b)  $B:C = 1.2:1$
  
  
  
  
  
  
  
  
  
  
- 4) Convert this ratio to decimal form:  
 $J:K = 8:5$
  
  
  
  
  
  
  
  
  
  
- 5) Convert this ratio to whole number form:  
 $B:C = 0.75:1$
  
  
  
  
  
  
  
  
  
  
- 6) The ratio of a rectangle's base to its height is 1.5:1.
  - a) Give the two thoughts associated with this ratio.
  
  
  
  
  
  
  
  
  
  
  - b) How long is the base if the height is 40 cm?
  
  
  
  
  
  
  
  
  
  
- 7) Whenever Jeff makes oatmeal, he mixes water and oats exactly in a ratio of 5 to 8. How much water does he need for 2 cups of oats?

# Ratios, Part I – Sheet #7

- 1) Find X and Y given that the two figures are similar.



- 2) Barry has \$21.00 and Ned has \$21.60. Give the ratio of Barry's money to Ned's money...

a) In whole number form.

b) In decimal form.

- 3) Give the reciprocal of each ratio.

c) B:G = 11:5

d) H:D = 3:13

e) R:W = 0.9:1

f) X:Y = 3.6:1

- 4) Convert this ratio to decimal form.

$$B:G = 13:4$$

- 5) Convert this ratio to whole number form.

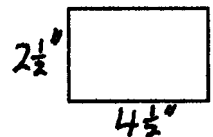
$$H:D = 2.125:1$$

- 6) A gallon of milk is poured into three pitchers such that the ratio of their volumes is 3:5:8. How much milk is in each pitcher (in fl.oz.)?

- 7) How can \$550 be split between four people in a ratio of 5:3:2:1?

- 8) The length of a shadow of a tree is 25 feet. A  $4\frac{1}{2}$ -foot pole next to it has a shadow  $2\frac{1}{2}$  feet long. How tall is the tree?

- 9) Write the four ways to express the ratio of this rectangle's dimensions.



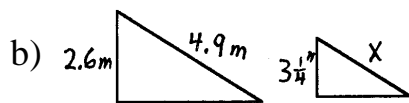
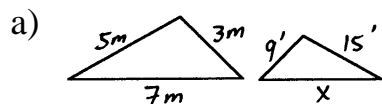
10) An amount of money is to be divided between Mary and John in a ratio of 7:5.

a) How much does John get if Mary gets \$28?

b) How much does Mary get if John gets \$450?

c) How much does each person get if there is a total of \$360?

11) Find X given that each pair of figures is similar.



12) Given that the ratio of cows to goats on a farm is 9 to 2 (C:G = 9:2)

c) What are the three thoughts associated with this ratio? Write each thought both as an equation and as a sentence.

d) If there are 198 goats, then how many cows are there?

e) If there are 198 cows, then how many goats are there?

f) If there are 198 goats and cows combined, then how many are goats and how many are cows?

## Review

13) Short Division.

Leave the answer as an exact decimal (perhaps repeating).

$$748.4 \div 0.09$$

14)  $(3\frac{1}{8})^2$

15)  $3\frac{5}{6} \cdot 100$

16)  $57\frac{2}{5} - 54\frac{7}{8}$

17)  $320.4 - 5.13$

18)  $0.008 \cdot 0.005$