

7th Grade Assignment – Week #13

Individual Work

- As much as you can with the problems on **Ratios (Part I) Sheet #5** (but be sure to save problems #6 and #8 for group work)

Group Assignments:

For Tuesday:

- **Ratios (Part I) Sheet #5:** Work on problems #6 and #8. (Hint for #8: use similar triangles)
- 1) *Puzzle!* Fran has two dollars less than twice as much money as Mary. How much does Mary have if they have \$41.50 together?

For Thursday:

- 2) *Puzzle!* The sum of the number of students at Alex's school, Bob's school and Chris's school is 531. One-quarter the number of students at Bob's school is equal to half the number of students at Alex's school, and also equal to one-third the number of students at Chris's school. How many students are there at each school?

Ratios, Part I – Sheet #5

- 1) Beth has \$360 and Frank has \$150.
a) What is the ratio of Beth's money to Frank's money in whole number form?

b) Give the three thoughts associated with the above ratio.

c) What is the ratio of Frank's money to Beth's money in whole number form?

d) Give the three thoughts associated with the above ratio.

e) What is the ratio of Beth's money to Frank's money in decimal form?

f) Give the two thoughts associated with the above ratio.

g) What is the ratio of Frank's money to Beth's money in decimal form?

h) Give the two thoughts associated with this ratio.

2) Give the reciprocal of each ratio.

a) $B:G = 7:5$

b) $H:D = 2:7$

c) $Y:X = 2.5:1$

d) $X:Y = 0.4:1$

3) Convert each ratio from whole number form to decimal form.

a) $B:G = 7:5$

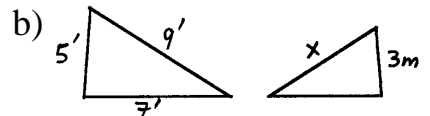
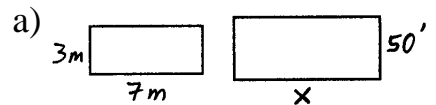
b) $H:D = 8:3$

4) Convert each ratio from decimal form to whole number form.

a) $X:Z = 4.3:1$

b) $K:J = 3.25:1$

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



- 6) On Jill's farm the ratio of cows to goats is 5 to 13. (C:G = 5:13)
- a) Give the three thoughts associated with this ratio.
- b) If there are 35 cows, then how many goats are there?
- c) If there are 52 goats, then how many cows are there?
- d) If there are 540 cows and goats combined, then how many are cows and how many are goats?

- 7) A recipe calls for $1\frac{1}{4}$ cups of milk and $3\frac{1}{2}$ cups of flour. How much milk is needed if the recipe is enlarged to include $4\frac{1}{2}$ cups of flour?
- 8) In determining the height of a flagpole, Fred measured that the length of the pole's shadow was 52 feet, and that the length of a yardstick's shadow, when held vertically next to the flagpole, was 5 feet 4 inches. Calculate the height of the flagpole.

Mental Math

- 9) $140 \div 35 =$
- 10) $18 \div 1.5 =$
- 11) $27 \div 4.5 =$
- 12) $22 \cdot 45 =$
- 13) $55 \cdot 8 =$
- 14) $350 \cdot 180 =$
- 15) $115000 \div 25 =$
- 16) $64 \div 4 =$

Review

- 17) $0.03 \text{ g} = \underline{\hspace{2cm}} \text{ kg}$
- 18) $5\frac{1}{2} \text{ tons} = \underline{\hspace{2cm}} \text{ lb}$
- 19) $14 \text{ c} = \underline{\hspace{2cm}} \text{ qt}$
- 20) $0.85 \text{ mm} = \underline{\hspace{2cm}} \text{ cm}$
- 21) $\sqrt{14400}$
- 22) $\sqrt[2]{6250000}$
- 23) $\sqrt[4]{6250000}$
- 24) $312\frac{2}{5} - 309\frac{2}{3}$
- 25) Division. Leave the answer as a mixed number. $7000 \div 333$