**Ratio, Proportion and Percent Worksheet**

**Ratios**

1) The ratio of red to white flowers is 2:5. If both the number of red and white flowers is doubled, what is the new ratio of red to white flowers?

2) Which ratio does not belong in the group? \(\frac{2}{5}, \frac{4}{10}, \frac{1}{2}, \frac{14}{35}, \frac{5}{10.5}, \frac{9}{22.5}\)

3) Keeping the ratio the same, how many circles and squares do you need to add to have a total of 12 (circles plus squares)?

   Circles: _____
   Squares: _____

4) Explain how you solved problem 3. Will the same procedure work to get a total of 15 (circles plus squares)? How many would you add for 15?

   Circles: _____
   Squares: _____

5) Why do we prefer to have ratios in fraction form? Can you give an example?

6) Give two examples (not in the *Algebra World* program or your textbook) of rates. Write them in fraction form.

7) Give an example of a unit rate (not in the *Algebra World* program or your textbook) that you see or use everyday.
8) For the following ratio pairs, fill in the appropriate sign: greater than (>); less than (<); or equal (=).

   a) \( \frac{2}{3} \) \( \frac{6}{9} \)
   b) \( \frac{3}{4} \) \( \frac{76}{102} \)
   c) \( \frac{5}{4} \) \( \frac{25}{20} \)

   b) \( \frac{13}{33} \) \( \frac{195}{47.5} \)
   c) \( \frac{7}{3} \) \( \frac{21}{8} \)
   d) \( \frac{11.5}{23} \) \( \frac{34}{56} \)

**Proportions**

9) Solve proportion, \( \frac{2}{x} = \frac{7}{14} \). Show each step of the process you use.

10) A sports car can drive 1,300 kilometers in one day. How many days for the sports car to drive 4,290 kilometers? Set up as a proportion equation and solve.

11) A and B are similar triangles. What is side \( c \)? Show work.

   \[ \frac{3}{1.3} = \frac{e}{2.6} \]

12) For the similar squares below, find \( x \).

   \[ \frac{50\,\text{cm}}{20\,\text{cm}} = \frac{x}{50\,\text{cm}} \]
Percent

13) What is a percent and why are percents important?

14) Describe four things in the day that are described by a percent. Look through a newspaper or magazine if you need to.

15) Write the following as percents:
   a) \( \frac{1}{2} = \) ____ %  
   b) 0.75 = ____ %  
   c) \( \frac{3}{8} = \) ____ %  
   d) 1.5 = ____ %  
   e) \( \frac{2}{3} = \) ____ %  
   f) 5.3 = ____ %  
   g) \( \frac{7}{6} = \) ____ %  
   h) 1 = ____ %

16) Why can you solve percent problems as a proportion problem?

17) What does it mean for a percent to be greater than 100%? For example 150%. Give an example where greater than 100% might be used.

18) A $200 bicycle is on sale with a 30% discount. How much is the sale price?