

## Math 221 - Fractions Worksheet

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Instructions: For problems 1-6, find all of the equivalent fractions to a given fraction using fraction tiles. Make a simple sketch of your picture. After you have done so, use the Fundamental Law of Fractions to show how the most simplified fraction is equivalent to every other fraction in the list.

For problems 7-12, determine which of the following fractions are bigger by filling in the blank with  $<$ ,  $>$ , or  $=$ . First, use the fraction tiles (with a sketch), then use the cross-multiplication theorem to verify your answer.

1.  $\frac{3}{6} = \underline{\quad}, \underline{\quad}, \underline{\quad}, \underline{\quad}, \underline{\quad}$

2.  $\frac{4}{12} = \underline{\quad}, \underline{\quad}$

3.  $\frac{2}{8} = \underline{\quad}, \underline{\quad}$

4.  $\frac{4}{6} = \underline{\quad}, \underline{\quad}$

5.  $\frac{9}{12} = \underline{\quad}, \underline{\quad}$

6.  $\frac{6}{10} = \underline{\quad}$

7.  $\frac{4}{8} \text{ --- } \frac{5}{12}$

8.  $\frac{4}{5} \text{ --- } \frac{8}{10}$

9.  $\frac{3}{8} \text{ --- } \frac{2}{5}$

10.  $\frac{2}{3} \text{ --- } \frac{7}{10}$

11.  $\frac{5}{6} \text{ --- } \frac{7}{8}$

12.  $\frac{2}{4} \text{ --- } \frac{2}{5}$

13. Considering problem 11 and the problem  $\frac{2}{3} \text{ --- } \frac{3}{4}$ , write a general rule for problems of this form. Explain your answer.

14. Considering problem 12 and the problem  $\frac{4}{5} \text{ --- } \frac{4}{6}$ , write a general rule for problems of this form. Explain your answer.