Name: _

Math 1120 Fraction Model Worksheet

Spring 2011

In this worksheet, we investigate division of fractions.

Here's one model for division: $\frac{a}{b} \div \frac{c}{d}$ denotes the number of pizzas you get per frat house if $\frac{a}{b}$ pizzas are divided evenly among $\frac{c}{d}$ frat houses. The key here is to be careful about what "evenly" means: all whole frat houses get the same amount of pizza, but any fractional frat houses only get a proportional amount: half a frat house gets half as much as a whole frat house, 2/3 of a frat house gets 2/3 as much, etc. Also, "the number of pizzas you get per frat house" means the number of pizzas each whole frat house gets. The pizzas you are given are marked so that they may be sliced into 12 equal pieces. You will CUT OUT the appropriate pizza portions and STICK them to the appropriate frat houses.

1. By starting with 2/3 of a pizza and dividing it evenly among the two frat houses below, illustrate the fact that $\frac{2}{3} \div 2 = \frac{1}{3}$.



2. Divide 2 pizzas evenly up among the 8/3 frathouses below. $\left(\frac{8}{3} = 2\frac{2}{3}\right)$



Here, you have just illustrated that $2 \div \frac{8}{3} =$ _____ (please express your answer in reduced form).

3. Divide 3/4 pizzas evenly among the 9/2 frat houses below.



Here, you have just illustrated that $\frac{3}{4} \div \frac{9}{2} =$ _____ (please express your answer in reduced form).

