Addition and Subtraction of Fractions

1. Using the pattern blocks and assuming that the yellow hexagon is one whole:

   A. Create $\frac{5}{6}$ and $\frac{2}{3}$.

   B. Compute $\frac{5}{6}-\frac{2}{3}$ by comparing the two pattern block designs and finding the difference.

   C. Was it necessary to compute a common denominator to subtract those two fractions?

2. Compute $\frac{3}{8}+\frac{5}{12}$. Carefully record the steps you use to do this. Are they all necessary? Why or why not? If not, try to compute the sum again with a simpler algorithm.

Invert and Multiply

1. Solve the following problem with a diagram and/or in the way that is most natural to you. A barrel of water is $\frac{5}{8}$ full. There are $\frac{10}{3}$ gallons of water in the barrel. How much water can the barrel hold?