Division of Fractions

Remember, division can be looked at from a couple of different perspectives. One of those is the "divvy up" method and the other is repeated subtraction.

For example, a problem such as $\frac{6}{8} \div 3$ can be looked at as "We have $\frac{6}{8}$ and we want to divide those into 3 groups. How many are in each group?" This is the divvy-up method of division.

Another example is $6 \div \frac{2}{3}$, where we say "We have 6 and want to divide these into groups of $\frac{2}{3}$. How many groups are there?" This is the repeated subtraction method of division.

Notice that in both cases, the first fraction tells us how much we have. The second fraction tells us what we are doing to the first number. This is the key to understanding the process for dividing fractions.

Division is also the *inverse* of multiplication. Therefore, to divide, we invert the second fraction and then multiply. The reason we don't do anything to the first fraction is because that's the amount we are starting with, and that doesn't change.

Let's look at the first two examples mentioned above.

1) $\frac{6}{8} \div 3$

2) $6 \div \frac{2}{3}$