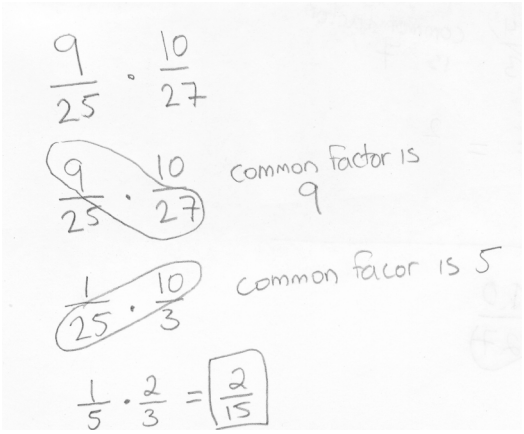
How to Multiply and Divide Fractions and Mixed Numbers

Reducing when you multiply fractions

1. Look at the numbers on the diagonal. If you can reduce those, do it before you multiply.
2. Once reduced, multiply the top and the bottom. Reduce your answer if necessary.

EXAMPLE:



Multiplying and Dividing Mixed Numbers

1. Change the mixed number to an improper fraction
2. If you are dividing, change the second fraction to the reciprocal
3. Multiply the improper fractions, reducing if necessary.

EXAMPLE: $11\frac{1}{4} \div 15\frac{5}{6}$

Step 1: change to improper fractions $\frac{45}{4} \div \frac{95}{6}$

Step 2: Change the second fraction to its reciprocal and change division to multiplication
$\frac{45}{4} \bullet \frac{6}{95}$

Step 3: Reduce along the diagonal if possible. The common factors of 4 and 6 is 2, the common factor of 45 and 95 is 5. $\frac{9}{2} \bullet \frac{3}{19}$

Step 4: Multiply $\frac{9}{2} \bullet \frac{3}{19} = \frac{27}{38}$

Step 5: Change back to a mixed number if needed $\frac{27}{38}$