Fraction Multiplication

(1) To multiply fractions you need to multiply the numerators, multiply the denominators, and then simplify your product if necessary.

$$\frac{4}{7} \cdot \frac{5}{8} = \frac{20}{56} = \frac{5}{14}$$

(2) Cross cancelling is the process of simplifying the fraction factors before multiplying. If you don't cross cancel before multiplying, you will need to simplify the product at the end.

$$\frac{\cancel{4}^{1}}{\cancel{9}_{3}} \cdot \frac{3}{\cancel{16}_{4}} \cdot \frac{\cancel{12}^{3}}{25} = \frac{1}{25}$$

(3) Multiplying fractions, decimals, and percents:

$$\frac{1}{3} \text{ of } 25\% = \frac{1}{3} \cdot \frac{1}{4} = \frac{1}{12}$$

$$.2 \text{ of } \frac{2}{9} = \frac{1}{5} \cdot \frac{2}{9} = \frac{2}{45}$$