6-2 Adding and Subtracting Fractions with Unlike Denominators

Today's Objective: You will learn how to add and subtract with unlike denominators.

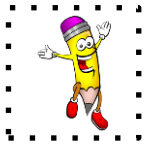**Unlike Denominators:** Denominators which are different in two fractions.

Least Common Denominator (LCD): The least common multiple (LCM) of any two (or more) denominators.

EX: 30 is the LCD of $\dfrac{1}{6}$ and $\dfrac{4}{15}$

**To add or subtract factions with unlike denominators:
1. Convert the fractions to equivalent fractions by finding a common denominator

2. Add or subtract the fractions

3. Convert to simplest form if possible

EX #1: Find the difference:

The problem: $\dfrac{3}{4} - \dfrac{1}{3}$

Common Denom: 12

Convert 1st fraction: $\dfrac{3}{4} = \dfrac{9}{12}$

Convert 2d fraction: $\dfrac{1}{3} = \dfrac{4}{12}$

Now compute: $\dfrac{9}{12} - \dfrac{4}{12} = \dfrac{5}{12}$

Simplest Form: $\dfrac{5}{12}$

EX #2: Find the sum:

The problem: $\dfrac{73}{100} + \dfrac{13}{25}$

Common Denom: 100

Convert 1st fraction: $\dfrac{73}{100}$

Convert 2d fraction: $\dfrac{13}{25} = \dfrac{52}{100}$

Compute: $\dfrac{73}{100} + \dfrac{52}{100} = \dfrac{125}{100}$

Simplify: $= 1\dfrac{25}{100} = 1\dfrac{1}{4}$

Simplest Form: $1\dfrac{1}{4}$

<u>YOU TRY:</u>

1. $\dfrac{6}{7} + \dfrac{2}{3} = b$

2. $\dfrac{5}{6} - \dfrac{4}{7} = p$

3. $\dfrac{18}{20} - \dfrac{4}{5} = m$

4. $\dfrac{8}{9} + \dfrac{1}{6} = g$