Name_____ Per _____

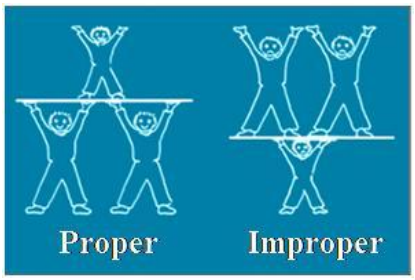
Mrs. Doolan /Math6

5-6 Improper Fractions and Mixed Numbers

Objective: To learn to convert between improper fractions and mixed numbers.

Improper Fraction: a fraction whose numerator is greater than or equal to its denominator.

Examples: $\frac{7}{2}$, $\frac{10}{6}$, $\frac{25}{25}$



Proper Fraction: a fraction whose numerator is less than its denominator. It is called proper because a fraction shows *a part of a whole*. If the numerator is greater than or equal to the denominator, then it isn't a part of a whole anymore, it's greater than a whole.

Examples: $\frac{11}{14}$, $\frac{4}{8}$, $\frac{9}{13}$

Mixed Number: A number combining a whole number with a fraction.

Examples: $2\ \frac{1}{15}$, $4\ \frac{27}{62}$, $8\ \frac{3}{4}$

Here's the processes:

To convert fractions to mixed numbers:

1. **Divide numerator by the denominator**
2. **Whole number is the whole number in the mixed number**
3. **The remainder becomes the numerator of the fraction. The denominator remains the same**
4. **Simplify the fraction if possible.**

Ex: $\frac{13}{4}$ $13 \div 4 = 3$ R1, or $3\frac{1}{4}$

To convert mixed numbers to improper fractions:

1. **Multiply the denominator by the whole number.**
2. **Add the mixed number numerator. This sum becomes the numerator and will be larger than the denominator.**
3. **The denominator remains the same**
4. **Simplify the fraction if possible.**

Ex: $2\frac{5}{7} = 7 \times 2 + 5 = 19$, so the improper is: $\frac{19}{7}$

NOTE: We used our Order of Operations to solve the above problem.

YOU TRY:

1. Convert to a mixed number:

$$\frac{17}{5}$$

2. Convert to an improper fraction:

$$4\frac{3}{7}$$