

# Mr. G's Math Marvels

## #20 Simplifying fractions

*A fraction is in simplest form if the greatest common factor, or GCF, of the numerator and denominator is 1.*

List the factors of the following pairs of numbers.

$$\begin{array}{l} 18 = \{ \quad \quad \quad \} \\ 24 = \{ \quad \quad \quad \} \end{array} \qquad \begin{array}{l} 15 = \{ \quad \quad \quad \} \\ 20 = \{ \quad \quad \quad \} \end{array}$$

$$\begin{array}{l} 10 = \{ \quad \quad \quad \} \\ 20 = \{ \quad \quad \quad \} \end{array} \qquad \begin{array}{l} 30 = \{ \quad \quad \quad \} \\ 36 = \{ \quad \quad \quad \} \end{array}$$

$$\begin{array}{l} 16 = \{ \quad \quad \quad \} \\ 24 = \{ \quad \quad \quad \} \end{array} \qquad \begin{array}{l} 17 = \{ \quad \quad \quad \} \\ 20 = \{ \quad \quad \quad \} \end{array}$$

What is the greatest common factor (GCF) of:

$$18 \text{ and } 24 \text{ \_\_\_\_\_\_} \qquad 15 \text{ and } 20 \text{ \_\_\_\_\_\_} \qquad 10 \text{ and } 20 \text{ \_\_\_\_\_\_}$$

$$16 \text{ and } 24 \text{ \_\_\_\_\_\_} \qquad 17 \text{ and } 20 \text{ \_\_\_\_\_\_} \qquad 30 \text{ and } 36 \text{ \_\_\_\_\_\_}$$

Simplify the following:

$$\frac{18}{24} = \underline{\hspace{2cm}} \qquad \frac{15}{20} = \underline{\hspace{2cm}} \qquad \frac{10}{20} = \underline{\hspace{2cm}} \qquad \frac{18}{20} = \underline{\hspace{2cm}}$$

$$\frac{16}{24} = \underline{\hspace{2cm}} \qquad \frac{17}{20} = \underline{\hspace{2cm}} \qquad \frac{30}{36} = \underline{\hspace{2cm}} \qquad \frac{16}{36} = \underline{\hspace{2cm}}$$

$$\frac{16}{17} = \underline{\hspace{2cm}} \qquad \frac{24}{36} = \underline{\hspace{2cm}} \qquad \frac{10}{24} = \underline{\hspace{2cm}} \qquad \frac{15}{36} = \underline{\hspace{2cm}}$$

If the following fractions are in simplest form, rewrite the fraction. If a fraction is not in simplest form, simplify it.

$$\frac{15}{18} = \underline{\hspace{2cm}} \quad \frac{11}{13} = \underline{\hspace{2cm}} \quad \frac{18}{30} = \underline{\hspace{2cm}} \quad \frac{5}{9} = \underline{\hspace{2cm}}$$

$$\frac{9}{12} = \underline{\hspace{2cm}} \quad \frac{7}{14} = \underline{\hspace{2cm}} \quad \frac{19}{20} = \underline{\hspace{2cm}} \quad \frac{16}{18} = \underline{\hspace{2cm}}$$

$$\frac{15}{24} = \underline{\hspace{2cm}} \quad \frac{21}{24} = \underline{\hspace{2cm}} \quad \frac{24}{30} = \underline{\hspace{2cm}} \quad \frac{16}{18} = \underline{\hspace{2cm}}$$