Equivalent and Simplified Fractions # 16

Fraction: shows part of a whole

$$\frac{part}{whole} = \frac{numerator}{denominator}$$

Equivalent Fractions: represent the same amount

$\frac{1}{2}$ 

$\frac{2}{4}$ 

* To make equivalent fractions, multiply both the numerator and denominator by the same #
(x 2 *or* x 3 *or* x 4 . . .)

EX. $\frac{1 \times 2}{5 \times 2} = \boxed{\frac{2}{10}}$ $\frac{1 \times 3}{5 \times 3} = \boxed{\frac{3}{15}}$ $\frac{1 \times 9}{5 \times 9} = \boxed{\frac{9}{45}}$

$\frac{3 \times 2}{7 \times 2} = \boxed{\frac{6}{14}}$ $\frac{3 \times 3}{7 \times 3} = \boxed{\frac{9}{21}}$ $\frac{3 \times 7}{7 \times 7} = \boxed{\frac{21}{49}}$

Simplify: Reduce to lowest terms

* To simplify, divide both the numerator and denominator by the same # (it has to be able to ÷ into both #'s)

EX. $\frac{3 \div 3}{9 \div 3} = \boxed{\frac{1}{3}}$ $\frac{5 \div 5}{20 \div 5} = \boxed{\frac{1}{4}}$ $\frac{12 \div 2}{16 \div 2} = \frac{6 \div 2}{8 \div 2} = \boxed{\frac{3}{4}}$

$\frac{15 \div 3}{21 \div 3} = \boxed{\frac{5}{7}}$ $\frac{18 \div 2}{50 \div 2} = \boxed{\frac{9}{25}}$ $\frac{24 \div 2}{36 \div 2} = \frac{12 \div 2}{18 \div 2} = \frac{6 \div 3}{9 \div 3} = \boxed{\frac{2}{3}}$