

## Reducing Fractions

Whenever we are dealing with numbers in the terms of fractions, we like to have them reduced to lowest terms.

The lowest terms of a fraction is the terms when the numerator and the denominator have no factors in common (relatively prime).

Ex.

$\frac{3}{4}$  is in lowest terms since 3 and 4 are relatively prime

$\frac{8}{20}$  is not in lowest terms since they have 4 as a common factor

To reduce fractions to lowest terms

Factor numerator and denominator

Cancel out factors in common

Ex.

Reduce  $\frac{8}{20}$  to lowest terms

$\frac{2 \cdot 2 \cdot 2}{2 \cdot 2 \cdot 5}$  becomes  $\frac{\cancel{2} \cdot \cancel{2} \cdot 2}{\cancel{2} \cdot \cancel{2} \cdot 5}$  or  $\frac{2}{5}$

Ex.

Reduce  $\frac{44}{100}$  to lowest terms

$\frac{2 \cdot 2 \cdot 11}{2 \cdot 2 \cdot 5 \cdot 5}$  becomes  $\frac{\cancel{2} \cdot \cancel{2} \cdot 11}{\cancel{2} \cdot \cancel{2} \cdot 5 \cdot 5}$  or  $\frac{11}{25}$