

## Rational Equations: Solving for Variables

**Solving for a variable** – isolate the variable in this rational expression.

Solve for  $m_1$  in:  $F = k \frac{m_1 m_2}{r^2}$

$$F = k \frac{m_1 m_2}{r^2} \rightarrow F \cdot r^2 = k \frac{m_1 m_2}{r^2} \cdot r^2 \rightarrow Fr^2 = km_1 m_2 \rightarrow \frac{Fr^2}{km_2} = \frac{km_1 m_2}{km_2} \rightarrow \frac{Fr^2}{km_2} = m_1$$

TRY:

Solve for  $y$  in:  $\frac{y-h}{x-k} = a$