

# LADDER METHOD

## GCF

$$\begin{array}{r|rr} 2 & 24 & 18 \\ \hline 3 & 12 & 9 \\ \hline & 4 & 3 \end{array}$$

Draw a G around all common factors

Multiply common factors

$$2 \times 3$$

$$\text{GCF} = 6$$

## LCM

$$\begin{array}{r|rr} 2 & 24 & 18 \\ \hline 3 & 12 & 9 \\ \hline & 4 & 3 \end{array}$$

Draw an L around all outside numbers

Multiply numbers inside the L

$$2 \times 3 \times 4 \times 3$$

$$\text{LCM} = 72$$

## SIMPLIFYING FRACTIONS

$$\begin{array}{r|rr} 2 & 24 & 18 \\ \hline 3 & 12 & 9 \\ \hline & 4 & 3 \end{array}$$

Place a slash between bottom two numbers

$$\text{ANSWER} = 4 / 3$$

## EQUIVALENT RATIOS/RATES

There are 24 boys and 18 girls on the cross country team. At this ratio, how many girls would be on the team with 36 boys?

|       |    |    |    |
|-------|----|----|----|
| Boys  | 24 | 12 | 36 |
| Girls | 18 | 9  | 27 |

$$\begin{array}{r|rr} 2 & 24 & 18 \\ \hline & 12 & 9 \\ \hline & 36 & 27 \end{array} \times 3$$

First, try to scale back. Next, scale forward to find final answer.