

# Warm Up Questions

Calculate the GCF and LCM for  
83160 & 26460

### Greatest Common Factor

$$\begin{array}{l} 83\ 160 \rightarrow 2 \times 2 \times 2 \times 3 \times 3 \times 3 \times 5 \times 7 \times 11 \\ 26\ 460 \rightarrow 2 \times 2 \times 3 \times 3 \times 3 \times 5 \times 7 \times 7 \end{array}$$

$$2 \times 2 \times 3 \times 3 \times 3 \times 5 \times 7$$

$$= 3780$$

## Least Common Multiple

$$83\ 160 \rightarrow 2 \times 2 \times 2 \times 3 \times 3 \times 3 \times 5 \times 7 \times 11$$

$$26\ 460 \rightarrow 2 \times 2 \times 3 \times 3 \times 3 \times 5 \times 7 \times 7$$

$$83\ 160 \rightarrow 2^3 \times 3^3 \times 5^1 \times 7^1 \times 11^1$$

$$26\ 460 \rightarrow 2^2 \times 3^3 \times 5^1 \times 7^2$$

$$= 2^3 \times 3^3 \times 5 \times 7^2 \times 11$$

$$= 8 \times 27 \times 5 \times 49 \times 11$$

$$= 582\ 120$$

