



Lowest Common Denominator

METHOD 1 – Prime Factoring

Find the LCD for the following fractions:

$$\frac{1}{12} \quad \frac{1}{15}$$

- Find the prime factors for each denominator.

$$\begin{array}{l} 12 \\ \swarrow \searrow \\ 2 \cdot 6 \\ \swarrow \searrow \\ 2 \cdot 3 \end{array} \quad \begin{array}{l} 15 \\ \swarrow \searrow \\ 3 \cdot 5 \end{array}$$

- List the factors in chart form.
- Bring factors down, and then multiply.

	2	2	3	5
12	2	2	3	
15			3	5

$$\begin{array}{c} \downarrow \\ 2 \end{array} \times \begin{array}{c} \downarrow \\ 2 \end{array} \times \begin{array}{c} \downarrow \\ 3 \end{array} \times \begin{array}{c} \downarrow \\ 5 \end{array} = 60$$

- **The LCD is 60**

METHOD 2 – Least Common Multiple

Find the LCD for the following fractions:

$$\frac{1}{12} \quad \frac{1}{15}$$

- List the multiples of each denominator.
 - 12, 24, 36, 48, **60**, 72,
 - 15, 30, 45, **60**, 75,
- Choose the smallest multiple that is common to both denominators.
- **The LCD is 60**