

# 1.1 Ladder Method to find GCF and LCM

***Objective: To find the Greatest Common Factor (GCF) and Least Common Multiple (LCM) of two numbers***



# Ladder Method to find GCF and LCM

Step 1: Write an upside down division box

Step 2: Find any common factors (list on left)

Step 3: Continue until there are no more common factors

To find the **GCF**, multiply all common factors (left side)

To find the **LCM**, draw the letter "L" around the left/bottom side. When you multiply these numbers, this is the LCM.

# Find the GCF and LCM

1) 48 and 80

Common Factors

To find **GCF**,  
multiply left side

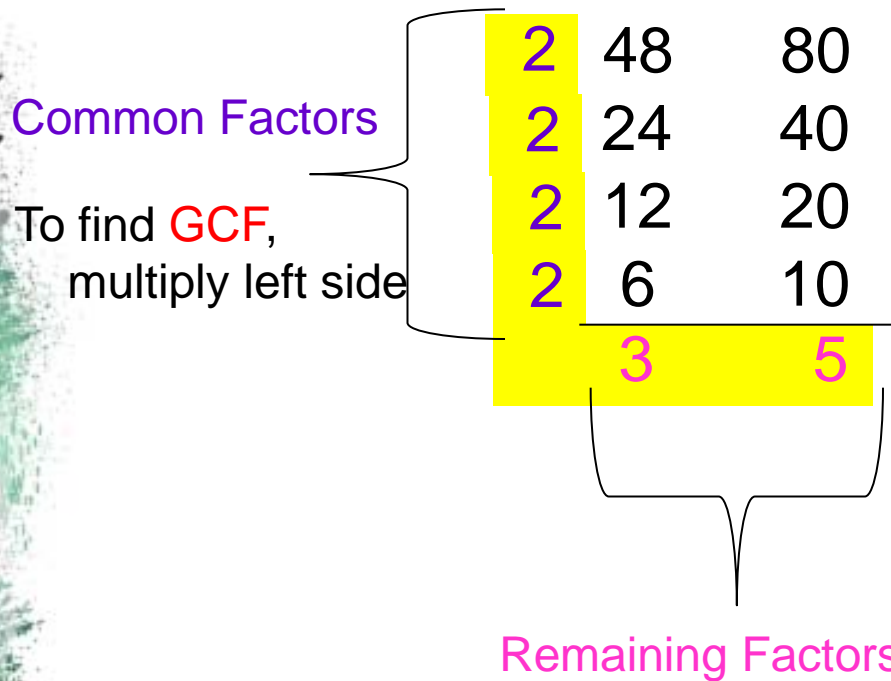
2	48	80
2	24	40
2	12	20
2	6	10
	3	5

Remaining Factors

$$\text{GCF: } 2 \times 2 \times 2 \times 2 = 16$$

# Find the GCF and LCM

1) 48 and 80



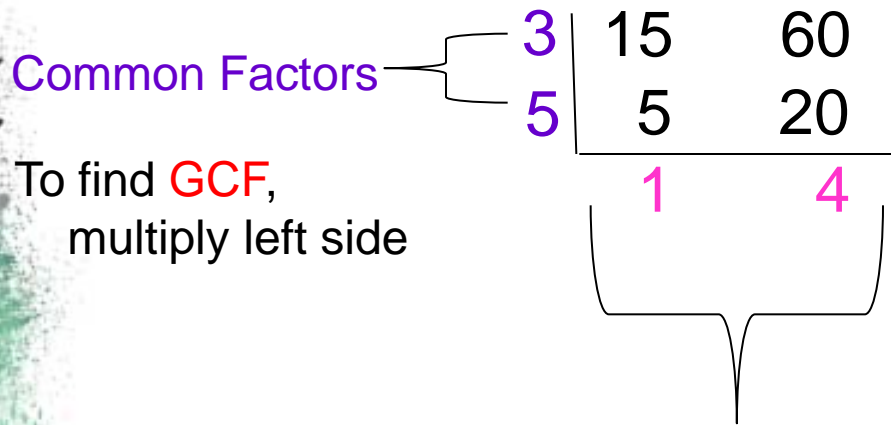
To find the **LCM**, multiply all numbers in L (highlighted)

$$\text{GCF: } 2 \times 2 \times 2 \times 2 = 16$$

$$\text{LCM: } 2 \times 2 \times 2 \times 2 \times 3 \times 5 = 240$$

# Find the GCF and LCM

2) 15 and 60

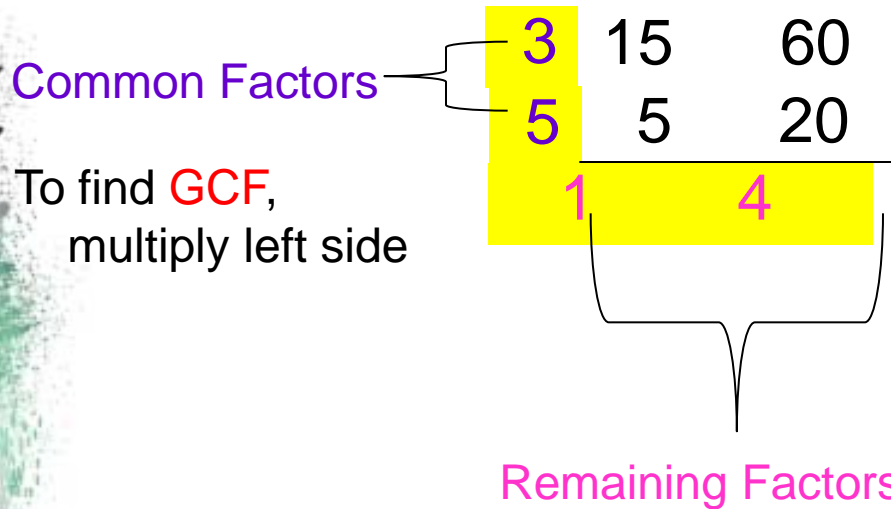


Remaining Factors

$$\text{GCF: } 3 \times 5 = 15$$

# Find the GCF and LCM

2) 15 and 60



To find the **LCM**,  
multiply all numbers in  
L (highlighted)

$$\text{GCF: } 3 \times 5 = 15$$

$$\text{LCM: } 3 \times 5 \times 1 \times 4 = 60$$