

## GCD and LCM

To find GCD: (Greatest common divisor)

if the smaller number is a multiple of the big number, then that is the gcd.

Ex.1 *What is the gcd of 6 and 18?*

6 goes into 18, so 6 is gcd.

Take the largest multiple of the smallest number so it would fit into the big number:

Ex.2 *What is the gcd of 8 and 28?*

The largest multiple of 8 that goes into 28 is 24 because  $8 \cdot 3$  is 24.

Then the gcd is the difference of the number or its factors.

$28 - 24 = 4$  So 4 is the gcd.

If there are no multiples, then the gcd is 1.

To find the LCM of 2 numbers is by using the formula:

$$\text{LCM of 2 numbers } a \text{ and } b \text{ is } = \frac{a \cdot b}{\text{GCD}}$$

Ex.1: *What is the LCM of 8 and 28?*

From the lesson above, we know that the gcd is 4, so plug the numbers into the formula:

$$\text{LCM} = \frac{8 \cdot 28}{4} = 56$$