

1.6 (text pg.38) Least Common Multiple (LCM)

Common Multiples are multiples that are shared by two or more numbers.

The multiples of 4: 4, 8, 12, 16, 20, 24, ...

The multiples of 3: 3, 6, 9, 12, 15, 18, 21, 24, ...



The least of the common multiples is called the **Least Common Multiple (LCM)**.

Ex. The Least common Multiple for 3 and 4 is **12**



2 ways to find LCM:

First Method (Old School):

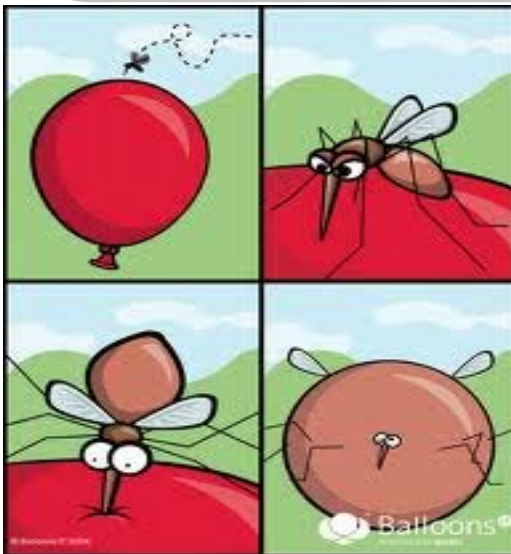
List all the multiples of both #'s, then find the smallest # in both lists.

Ex. LCM (8, 12) =



8: 8, 16, 24, 32, 40, 48, 56, 64 ...

12: 12, 24, 36, 48, 60, 72 ...



THESE ARE THE BALLOON ANIMALS I CAN MAKE:



worm



snake



eel

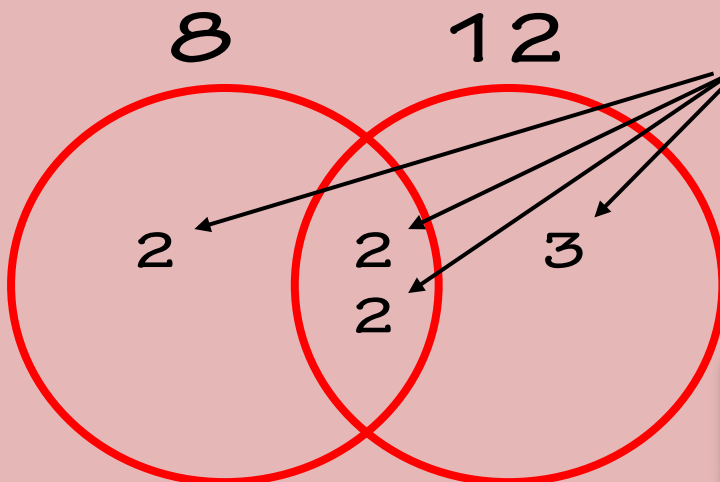
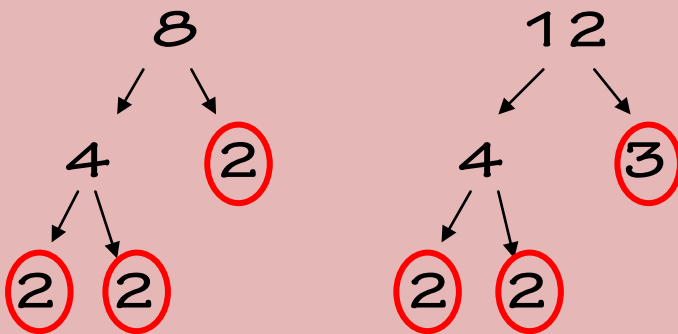
Second Method (New School):

Step 1: Make a factor tree for both numbers

Step 2: Use a Venn Diagram for common factors

Step 3: Multiply all the #'s from the entire circle.

Ex. LCM (8, 12) =



The LCM is the product of the prime numbers that appear in both factorizations and the middle.

$$2 \times 2 \times 2 \times 3 = 24$$

