

# CHAPTER #3 FRACTIONS

February 15, 2016 12:09 PM

## Greatest Common Factor (GCF) & Lowest Common Multiple (LCM)

Factor numbers multiplied together to obtain a given product

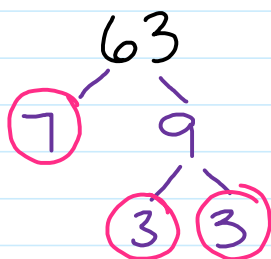
ex 3 and 5 are factors of 15  
1 and 15 are factors of 15

Prime #: a whole # greater than 1 with exactly 2 factors, 1 and itself

ex 2, 3, 5, 7, 11, 13, 17, 19.

Composite #: whole # greater than 1, that is not prime

Ex #1 Use a factor tree to find the prime numbers of 63



63 1, 63, 7, 9, 21, 3  
factors

63 1, 3, 7, 9, 21, 63

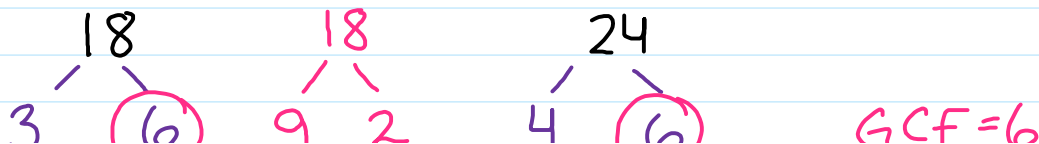
prime factorization  $7 \times 3 \times 3 = 63$

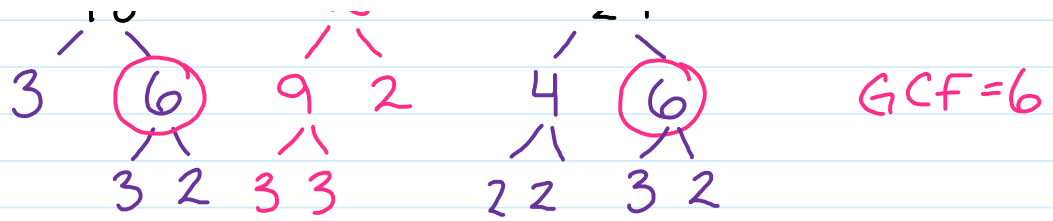
L  $\longrightarrow$  H

## The Greatest Common factor (GCF)

$\hookrightarrow$  the largest factor that is the same in all given numbers  
# the largest # that can divide evenly into all numbers

Ex. #1 find the GCF of 18 and 24





18 1, 18, 2, 9, 3, 6

GCF = 6

24 1, 24, 4, 6, 2, 12, 3, 8

Ex #2

10 1, 10, 2, 5

GCF = 2

12 1, 12, 6, 2, 3, 4,

Ex #3

35 1, 35, 5, 7

GCF = 7

42 1, 42, 6, 7, 2, 21

Least Common Multiple (LCM)

↳ the smallest # that is a multiple of each of the given numbers

Ex #1 LCM of 4 and 10

4 4, 8, 12, 16, 20, 24

10 10, 20, 30, 40

LCM = 20

Ex #2

30 30, 60, 90, 120, 150, 180, 210

42 42, 84, 126, 168, 210

LCM = 210

