Factors

whole #'s that multiply together to give a larger #

Factors of . . .

6 : 1, 2, 3, 6

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

Greatest Common Factor (GCF):

The biggest factor 2 #'s have in common

Find the GCF:

24 & 36 :

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

36 : 1, 2, 3, 4, 6, 9, 12, 18, 36

GCF: 12

5 & 20 :

Multiples

The product of the # and another whole #. AKA "count-bys"

Multiples of . . .

10 : 10, 20, 30, 40. . ..

7 : 7, 14, 21, 28. . .

Least Common Multiple (LCM):

the smallest multiple 2 #'s have in
                                        common

Find the LCM:

5 & 8 :
  5: 5, 10, 15, 20, 25, 30, 35, 40   LCM: 40
  8: 8, 16, 24, 32, 40

12 & 10:

Prime Factorization:

Writing a # as the product of primes
"factor tree"

Prime: only factors are 1 and itself
ex: 7, 11, 13, etc...

Composite: #'s w/ factors other than 1 and itself
ex: **12**, 8, 49, 100 etc...

Write the prime factorization of 24, 50, + 81

24

(2)   12

(2)   6

(2) (3)

$2 \cdot 2 \cdot 2 \cdot 3$ = 24

$2^3 \cdot 3$ = 24