DIVISIBILITY RULES

HOW TO FIND FACTORS AND REDUCE FRACTIONS

The terms **DIVISIBILITY BY**, **FACTOR OF**, and **MULTIPLE OF** are related.

A number is divisible by:

1. The number 2, if the number ends in 0, 2, 4, 6, or 8.
2. The number 3, if the number's digit sum is divisible by 3 (add the digits and try to divide by 3).
3. The number 4, if the number's last two digits name a multiple of 4 (if the last two digits can be divided by 4).
4. The number 5, if the number ends in 0 or 5.
5. The number 6, if both 2 and 3 divide into the number (do the divisibility test for 2 and 3).
6. The number 9, if the number's digit sum is divisible by 9 (add the digits and try to divide by 9).
7. The number 10, if it ends in 0.

Any whole number that does not meet one of these tests is not divisible by any of the numbers above. . .

- There is only one possible selection of prime numbers in the prime factorization of a composite number.
- To find the *Least Common Multiple* of two or more numbers, write each prime factor the greatest number of times it is a factor of any one of the given numbers. Then multiply these factors.
- The *Least Common Multiple* of two numbers that have no common factor is the product of the two numbers – in other words, multiply them to get the **LCM**.