

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