Factors and Divisibility Rules

Finding factors is an essential skill for working with fractions, and divisibility rules can help us find factors quickly and easily.

Factors

Factors of a number are numbers that divide evenly into the given number leaving no remainder.

For example, factors of 6 are numbers that divide evenly into 6.
1, 2, 3 and 6 all divide evenly into 6, so these are factors of 6.

Divisibility Rules

Divisibility rules can be used to help find factors of numbers.

A number is divisible by:

2 if the number is even (the last digit of the number ends in 0, 2, 4, 6 or 8)

3 if the sum of the digits in the number is divisible by 3

4 if the number formed by the last two digits is divisible by 4
If a number is not divisible by 2, then it is not divisible by 4.

5 if the last digit of the number is either 0 or 5

6 if the number is divisible by both 2 and 3

8 if the number formed by the last three digits is divisible by 8
If a number is not divisible by 4, then it is not divisible by 8.

9 if the sum of the digits in the number is divisible by 9
If a number is not divisible by 3, then it is not divisible by 9.

10 if the last digit of the number is 0

There is a rule for 7, but due to its complexity it's usually faster to just test by division.