

## Divisibility Rules

How can you tell whether a number is divisible by another number (leaving no remainder) without actually doing the division?

3	If the sum of the digits is divisible by three, the number is also.
4	If the last two digits are divisible by 4, the number is also.
5	If the last digit is a 5 or a 0, the number is divisible by 5.
6	If the number is divisible by both 3 and 2, it is also divisible by 6.
7	Take the last digit, double it, and subtract it from the rest of the number; if the answer is divisible by 7 (including 0), then the number is also.
8	If the last three digits are divisible by 8, the number is also.
9	If the sum of the digits is divisible by 9, the number is also. This holds for any power of 3.
10	If the number ends in 0, it is divisible by 10.
11	Subtract the sum of the even digits from the sum of the odd digits; if the difference, including 0, is divisible by 11, the number is also.
12	If the number is divisible by both 3 and 4, it is also divisible by 12.
13	Delete the last digit from the number, then subtract 9 times the deleted digit from the remaining number. If what is left is divisible by 13, then so is the original number.