

DIVISIBILITY RULES

A number is divisible by:

| | |
|----|---|
| 2 | if the last digit is 0,2,4,6 or 8 |
| 3 | if the sum of the digits is divisible by 3 |
| 4 | if the last two digits are divisible by 4 |
| 5 | if the last digit is a 5 or a 0 |
| 6 | if the number is both divisible by 2 & 3 |
| 8 | if the last three digits are divisible by 8 |
| 9 | if the sum of the digits are divisible by 9 |
| 10 | if the last digit is a 0 |

Dividing by 7

To find out if a number is divisible by seven, take the last digit, double it, and subtract it from the rest of the number.

Example: If you had 203, you would double the last digit to get six, and subtract that from 20 to get 14. If you get an answer divisible by 7 (including zero), then the original number is

divisible by seven. If you don't know the new number's divisibility, you can apply the rule again.

Dividing by 11

Take any number, such as 365167484.

Add the first, third, fifth, seventh,..., digits..... $3 + 5 + 6 + 4 + 4 = 22$

Add the second, fourth, sixth, eighth,..., digits..... $6 + 1 + 7 + 8 = 22$

If the difference, including 0, is divisible by 11, then so is the number.

$22 - 22 = 0$ so 365167484 is evenly divisible by 11.

Dividing by 12

Check for divisibility by 3 and 4

Dividing by 13

Delete the last digit from the given number. Then subtract nine times the deleted digit from the remaining number. If what is left is divisible by 13, then so is the original number.