

Divisibility Tests



- A number is divisible by 2 if its last digit is even (0,2,4,6 or 8)
- A number is divisible by 3 if the sum of its digits is divisible by 3.
- A number is divisible by 4 if the number's last two digits are divisible by 4.
- A number is divisible by 5 if its last digit is a 0 or 5.
- A number is divisible by 6 if it is divisible by 2 and 3 (see rules above).
- There is no simple test for divisibility by seven, you need to do the division and check there is no remainder!
- A number is divisible by 8 if the last three digits form a number that is divisible 8.
- A number is divisible by 9 if the sum of the digits is divisible by 9.
- A number is divisible by 10 if its last digit is 0.
- A number is divisible by 11 if the alternating sum of its digits is divisible by 11. Alternating sum means $a-b+c-d+\dots - m$
- A number is divisible by 12 if it is divisible by 3 and 4.

Put ticks or crosses to show whether numbers below are divisible by numbers to the right.	2	3	4	5	6	8	9
12							
24							
31							
52							
68							
100							
155							
200							
250							
301							
368							
725							
2456							
7281							
284657							
123123							

Answers	2	3	4	5	6	8	9
12	✓	✓	✓	✗	✓	✗	✗
24	✓	✓	✓	✗	✓	✓	✗
31*	✗	✗	✗	✗	✗	✗	✗
52	✓	✗	✓	✗	✗	✗	✗
68	✓	✗	✓	✗	✗	✗	✗
100	✓	✗	✓	✓	✗	✗	✗
155	✗	✗	✗	✓	✗	✗	✗
200	✓	✗	✓	✓	✗	✓	✗
250	✓	✗	✗	✓	✗	✗	✗
301**	✗	✗	✗	✗	✗	✗	✗
368	✓	✗	✓	✗	✗	✓	✗
725	✗	✗	✗	✓	✗	✗	✗
2456	✓	✗	✓	✗	✗	✓	✗
7281	✗	✓	✗	✗	✗	✗	✓
284657	✗	✗	✗	✗	✗	✗	✗
123123	✗	✓	✗	✗	✗	✗	✗

*31 is a prime number.

**301 look as though it might be a prime number but is composite (7×43)