

16 MORE DIVISIBILITY TESTS

Divisibility by 11

A number is **divisible by 11** if the sum of the numbers made by 'pairing' the digits from the right is divisible by 11.

Example 1 578

The digits paired from the right and then added is $5 + 78 = 83$

83 is not divisible by 11 so 578 is also not divisible by 11.

Example 2 96 833

The digits paired from the right and added is $9 + 68 + 33 = 110$.

110 is divisible by 11 so 96 833 is also divisible by 11.

Use this method to see if these numbers are divisible by 11.

869 2846 35 072 459876

Test some of your own numbers.

There is a different test you can use for divisibility by 11.

Research it and test it out.

Divisibility by 7

To test if a number is **divisible by 7** follow these steps.

Example 8653

- Step 1** Remove the ones digit
Step 2 Subtract twice this digit
Step 3 Repeat steps 1 and 2

FOR THE EXAMPLE

Remove 3 TO LEAVE 865

$865 - 2 \times 3 = 859$

Remove 9 TO LEAVE 85

$85 - 2 \times 9 = 67$

If the number left is divisible by 7 then the original number will also be divisible by 7.

67 is not divisible by 7 and so 8653 is not divisible by 7.

Test to see if these numbers are divisible by 7.

112 154 182 187 356
994 274 2464 6557

Divisibility by 8

There is a different test from the one given on page 50 of the pupil resource book that you can use for divisibility by 8.

Research this other way and test it out.