

## Divisibility tests

Divisibility tests are used to see if a small whole number will be a factor of a larger composite number.

A number is always divisible by **2** if the last digit is an even number (i.e. 0, 2, 4, 6 or 8)

234 is divisible by 2 as the last digit (4) is **even**

A number is always divisible by **3** if the sum (+) of all its digits is divisible by 3

234 is divisible by 3 because  $2 + 3 + 4 = 9$  (which is divisible by 3)

A number is always divisible by **4** if the number formed by the last two digits is divisible by 4

1324 is divisible by 4 because the last two digits form the number 24 (which is divisible by 4)

A number is always divisible by **5** if the last digit of the number is a 0 or 5

265 is divisible by 5 because the last digit is a 5

A number is always divisible by **6** if it is divisible by both 2 and 3

234 is divisible by 6 because it is **even** (so divisible by 2) **and**  $2 + 3 + 4 = 9$  (which is divisible by 3)

A number is always divisible by **8** if the number formed by the last three digits is divisible by 8

1328 is divisible by 8 because the last three digits form the number 328 (which is divisible by 8)

A number is always divisible by **9** if the sum (+) of all its digits is divisible by 9

234 is divisible by 9 because  $2 + 3 + 4 = 9$  (which is divisible by 9)

A number is always divisible by **10** if the last digit of the number is a 0

1840 is divisible by 10 because the last digit is 0



Investigate the divisibility tests for 7 and 11. They are a little more involved but interesting!



**Divisibility tests**

Use the divisibility tests to determine whether each of these numbers are divisible by the numbers listed on the right hand side. Draw a line to all the numbers each one is divisible by.

The first number is completed for you.



620	-----	2
136		3
96		4
1491		5
345		6
207		8
512		9
588		10
738		
1 001 001		
312 756		
8640		
12 871		
6030		

