

## How to recognise factors

Factors of 2: Any even integer has a factor of 2. So if the units/ones digit is 0, 2,4,6 or 8 it has a factor of 2.

E.g. 346 → has 6 units/ones, so is even and has a factor of 2  
683 → has 3 units/ones, so is odd and doesn't have a factor of 2

Factors of 3: If you add the digits of an integer together (if the answer is more than a single digit add those digits together) and the total is 3, 6 or 9, the number has a factor of 3.

E.g. 78 →  $7+8=15$  then  $1+5=6$  so 78 has a factor of 3  
86 →  $8+6=14$  then  $1+4=5$  so 86 doesn't have a factor of 3

Factors of 4: If you halve the number (or divide by 2) and get an even answer, the number has a factor of 4.

E.g. 52 → half of  $52=26$  which is an even number, so 52 has a factor of 4  
62 → half of 62 is 31 which is an odd number, so 62 doesn't have a factor of 4

Factors of 5: All numbers that are divisible by 5 have either 0 or 5 as the units/ones digit.

E.g. 75 → has 5 units/ones, so 75 has a factor of 5  
67 → has 7 units/ones, so 67 doesn't have a factor of 5

Factors of 6: If the number is even and has a factor of 3, it has a factor of 6.

E.g. 84 → is even and has a factor of 3, so 84 has a factor of 6  
75 → is odd and has a factor of 3, so 75 doesn't have a factor of 6

Factors of 10: All numbers that have a factor of 10 have 0 units/ones.

All numbers that have a factor of 4 also have a factor of 2

All numbers that have a factor of 6 also have a factor of 3

All numbers that have a factor of 8 also have a factor of 2 and 4

All numbers that have a factor of 9 also have a factor of 3

All even numbers that have a factor of 9 also have a factor of 6

All numbers that have a factor of 10 also have a factor of 2 and 5