

# Four Operations

Squared Numbers - A squared number is the result of multiplying a number by itself. The answer is the squared number.

| Indices | Number sentence | Answer/ Squared Number |
|---------|-----------------|------------------------|
| $2^2$   | $2 \times 2$    | 4                      |
| $5^2$   | $5 \times 5$    | 25                     |
| $7^2$   | $7 \times 7$    | 49                     |

Cubed Numbers - A cubed number is the result of multiplying a number by itself twice. The answer is the cubed number.

| Indices | Number sentence       | Answer/ Cubed Number |
|---------|-----------------------|----------------------|
| $2^3$   | $2 \times 2 \times 2$ | 8                    |
| $5^3$   | $5 \times 5 \times 5$ | 125                  |
| $7^3$   | $7 \times 7 \times 7$ | 343                  |

Factor - A factor is a whole number that divides exactly into a whole number without a remainder.

e.g.  
Factors of 12 include: 1, 2, 3, 4, 6 and 12  
  
Factors of 30 include: 1, 2, 3, 5, 6, 10, 15 and 30

Prime Number - Prime numbers are numbers greater than 1 that have only two factors, themselves and 1.

e.g.  
7 is a prime number as the only factors are 7 and 1.  
  
9 is not a prime number as 1, 3 and 9 are factors.

Multiple - A multiple is a number that can be found in that particular times table.

e.g.  
Multiples of 3 include: 3, 6, 9, 12, 15, 18, 21, 24  
  
Multiples of 12 include: 12, 24, 36, 48, 60, 72

Common Multiple - A common multiple is a number that can be found in two or more specific times tables.

e.g.  
Multiples of 3 include: 3, 6, 9, 12, 15, 18, 21, 24  
Multiples of 5 include: 5, 10, 15, 20, 25  
  
A common multiple of 3 and 5 is 15



Common factor - A number that two or more numbers divide by without a remainder  
e.g. 6 is a common factor of 12 and 18  
  
Common multiple - A number that can be seen in more than one set of multiplication facts  
  
Commutative - where the answer is the same regardless of which way round you do the operation  
e.g.  $3 + 5 = 8$  and  $5 + 3 = 8$   
  
Factor - A number that divides from a given number without a remainder  
  
Indices - A number that indicates how many times to multiply by  
  
Multiple - A number that forms part of a specific group of multiplication  
  
Place holder - A significant zero in the representation of a number  
  
Prime number - A number that is only divisible by itself and 1

## Multiplying and dividing by 10, 100 and 1000

When multiplying by 10, 100 or 1000, the digits move to the left.

| Units    |      |      |
|----------|------|------|
| Hundreds | Tens | Ones |
| 4        | 2    | 7    |



When dividing by 10, 100 or 1000, the digits move to the right.

| Units    |      |      | • | 1/10   | 1/100      | 1/1000      |
|----------|------|------|---|--------|------------|-------------|
| Hundreds | Tens | Ones | • | Tenths | Hundredths | Thousandths |
| 4        | 2    | 7    | • |        |            |             |



The number of places is determined by the number of place holders.  
10 = move one place  
100 = move two places  
1000 = move three places

## Order of operations:

