**Multiplication and division vocabulary**

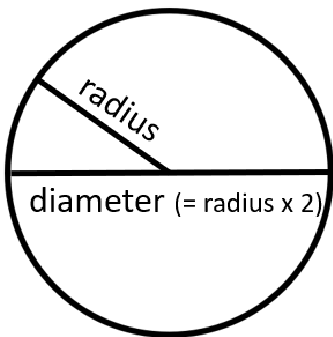
|  |  |  |
| --- | --- | --- |
| **Term** | **Definition** | **Example** |
| factor | a number that divides exactly into another number | factors of 12 = 1, 2, 3, 4, 6, 12 |
| common factor | factors of two numbers that are the same | common factors of 8 and 12 = 1, 2, 4 |
| prime number | a number with only 2 factors: 1 and itself | 2, 3, 5, 7, 11, 13, 17, 19… |
| composite  number | a number with more than two factors | 12  (it has 6 factors) |
| prime factor | a factor that is prime | prime factors of 12 = 2, 3 |
| multiple | a number in another number’s times table | multiples of 9 = 9, 18, 27, 36… |
| common multiple | multiples of two numbers that are the same | common multiples of 4 and 6 = 12, 24… |
| square numbers | the result when a number has been multiplied by itself | 25 (52 = 5x5)  49 (72 = 7x7) |
| cube numbers | the result when a number has been multiplied by itself 3 times | 8 (23 = 2x2x2)  27 (33 = 3x3x3) |

**Roman numerals**

|  |  |  |  |
| --- | --- | --- | --- |
| 1 | I | 100 | C |
| 5 | V | 500 | D |
| 10 | X | 1000 | M |
| 50 | L |  |  |

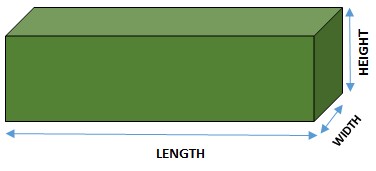
**Measurement conversions**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  | | --- | --- | | **Month** | **Days** | | January | 31 | | February | 28 (29 in leap year) | | March | 31 | | April | 30 | | May | 31 | | June | 30 | | July | 31 | | August | 31 | | September | 30 | | October | 31 | | November | 30 | | December | 31 | | |  |  | | --- | --- | | 1 **cent**imetre | 10mm | | 1 metre | 100cm | | 1 **kilo**metre | 1,000 m | |  |  | | 1 mile | 1.6 km | | 1 kilometre | 0.625 (5/8) mile | |  |  | | 1 **kilo**gram | 1,000 grams | |  |  | | 1 litre | 1,000 **milli**litres | |

**Year 6 Knowledge organiser**

|  |  |  |  |
| --- | --- | --- | --- |
| **3D shapes** | square-based pyramid | triangularbased pyramid  (tetrahedron) | triangular prism |
| **faces**  (the flat sides) | **5** | **4** | **5** |
| **edges** | **8** | **6** | **9** |
| **vertices**  (the points where the edges meet) | **5** | **4** | **6** |

**Volume** = the amount of space a 3D shape takes up, usually measured in cm3 or m3



**The mean**

The mean is a type of average. To find the mean, add up all the numbers and divide by how many there are. E.g. the mean of 4, 5,3, 4 is 4. (Because 4 + 5 + 3 + 4 = 16, and 16 ÷ 4 = 4)

**Co-ordinates**

Read co-ordinates along the x axis

(horizontal) first, then the y axis

(vertical). E.g. (3,-4) = go right 3, down 4.

**Shape vocabulary perimeter** = measure around the edge (**circumference** = perimeter of a circle)

Horizontal line parallel lines

Vertical line Perpendicular lines

**Angles**

|  |  |  |
| --- | --- | --- |
| full turn | 360° |  |
| half turn | 180° | |
| right angle | 90° | |
| acute angle | < 90° | |
| obtuse angle | > 90° | |
| reflex angle | >180° | |
| angles on a straight line | 180° | |
| angles inside a triangle | 180° | |
| angles inside a quadrilateral | 360° | |

**Fractions, decimals & percentages**

|  |  |  |  |
| --- | --- | --- | --- |
| 1/100 | 0.01 | 1% | ÷ 100 |
| 1/20 | 0.05 | 5% | ÷ 20 |
| 1/10 | 0.1 | 10% | ÷ 10 |
| 1/5 | 0.2 | 20% | ÷ 5 |
| ¼ | 0.25 | 25% | ÷ 4 |
| ½ | 0.5 | 50% | ÷ 2 |
| ¾ | 0.75 | 75% | ÷ 4, x3 |
| 1/8 | 0.125 | 12.5% | ÷ 8 |
| 1 | 1 | 100% | ÷ 1 |

**Volume of a cuboid** = length x width x height

**2D shapes**

|  |  |
| --- | --- |
| **Name** | **No. of sides** |
| quadrilateral | 4 |
| pentagon | 5 |
| hexagon | 6 |
| heptagon | 7 |
| octagon | 8 |
| nonagon | 9 |
| decagon | 10 |

polygon = shape with straight sides regular = all sides/angles the same irregular = sides/angles **not** same

**Types of triangle**



scalene equilateral isosceles

**Types of quadrilateral**



parallelogram trapezium rhombus

**AREA**

is the amount of space inside a 2D shape usually measured in cm2 or m2.

|  |
| --- |
| **Area of a triangle**  = (base x height) ÷ 2  **Area of a parallelogram** = base x height |

*(Height = perpendicular height)*