

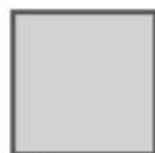


## Percentages, Fractions & Decimals

	100% =	$\frac{1}{1}$	=	1.0
	75% =	$\frac{3}{4}$	=	0.75
	66% =	$\frac{2}{3}$	=	0.666
	50% =	$\frac{1}{2}$	=	0.5
	33% =	$\frac{1}{3}$	=	0.333
	25% =	$\frac{1}{4}$	=	0.25
	10% =	$\frac{1}{10}$	=	0.1

## 2D Shapes

Flat figures are called two dimensional



Square



Rectangle



Trapezium



Parallelogram



Kite



Triangle



Pentagon



Circle



Ellipse

**3 sides – triangle**  
**4 sides – quadrilateral**  
**5 sides – pentagon**  
**6 sides – hexagon**

**7 sides – heptagon**  
**8 sides – octagon**  
**9 sides – nonagon**  
**10 sides – decagon**



## 3D Shapes

Solid figures are called three-dimensional figures. A solid figure has length, width and height.

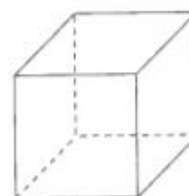
Parts of a solid figure include the following:

Faces: the flat surface of a three-dimensional figure.

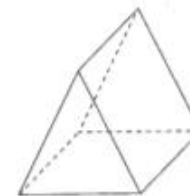
Edges: the intersection of two faces of a three-dimensional figure.

Vertices: the intersection of two or more edges of a three-dimensional figure; a corner.

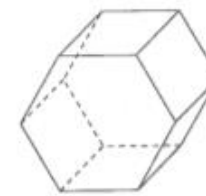
## Three-Dimensional Shapes



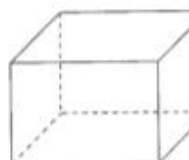
Cube



Triangular Prism



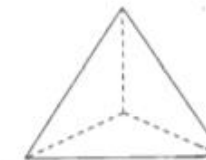
Hexagonal Prism



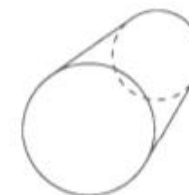
Rectangular Prism



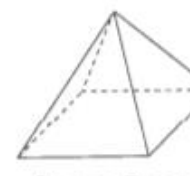
Cone



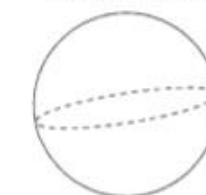
Triangular Based Pyramid  
or Tetrahedron



Cylinder



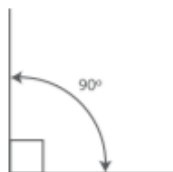
Square Based  
Pyramid



Sphere



## Angles



A **right angle** is  $90^\circ$



An **acute angle** is less than  $90^\circ$



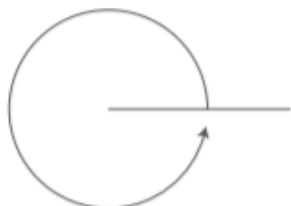
An **obtuse angle** is more than  $90^\circ$  and less than  $180^\circ$



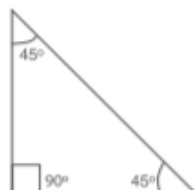
A **reflex angle** is more than  $180^\circ$  but less than  $360^\circ$



A **straight line** is  $180^\circ$



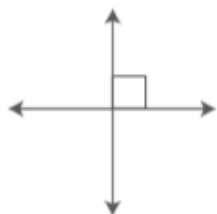
A **circle** is  $360^\circ$



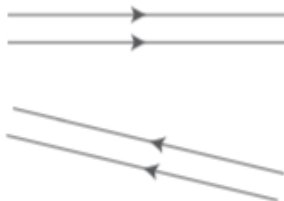
The angles in a **triangle** always add up to  $180^\circ$

## Lines

Perpendicular lines make a right angle



Parallel lines never meet



## Metric Measurements

### Length

millimetre	mm
centimetre	cm
metre	m
kilometre	km
10 millimetres =	1 centimetre
100 centimetres =	1 metre
1000 metres =	1 kilometre

### Area

millimetre squared	mm <sup>2</sup>
centimetre squared	cm <sup>2</sup>
metre squared	m <sup>2</sup>
kilometre squared	km <sup>2</sup>
hectare	ha

### Capacity

millilitre	ml
litre	l
kilolitre	kl
1000 millilitres =	1 litre
1000 litres =	1 kilolitre

### Mass

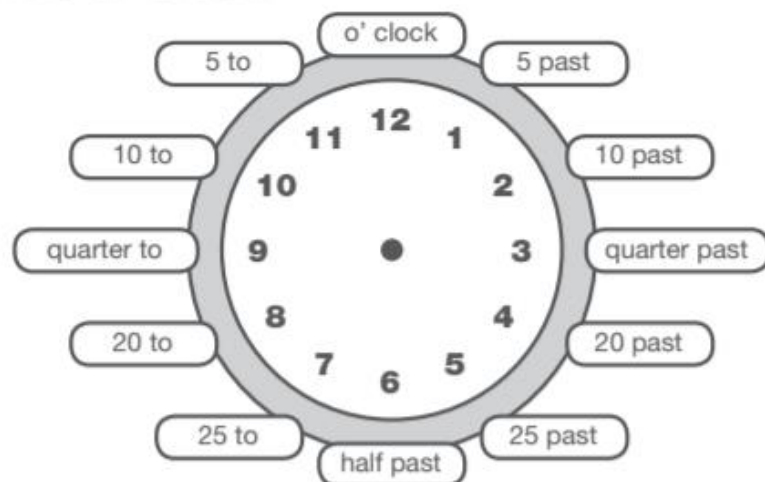
gram	g
kilogram	kg
tonne	t
1000 grams =	1 kilogram
1000 kilograms =	1 tonne

### Temperature

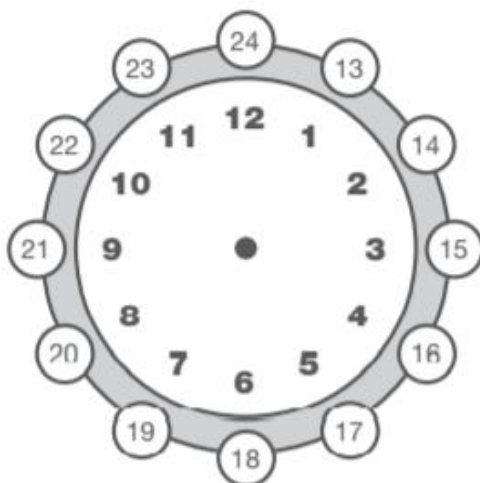
degrees Celsius	$^\circ\text{C}$
degrees Fahrenheit	$^\circ\text{F}$



## 12 Hour Clock



## 24 Hour Clock



## Units of Time

1 minute = 60 seconds  
 1 day = 24 hours  
 1 year = 52 weeks (365 days)

1 hour = 60 minutes  
 1 week = 7 days



## Number Square

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

## Prime Numbers

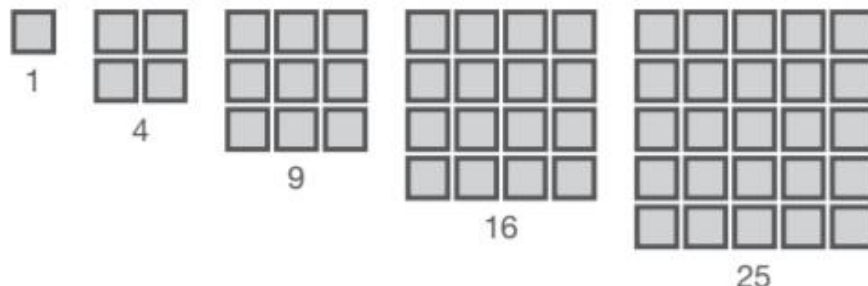
A prime number can be divided evenly only by 1, or itself. It must also be a whole number greater than 1.

2	3	5	7	11	13	17	19	23	29	31	37	41
43	47	53	59	61	67	71	73	79	83	89	97	101



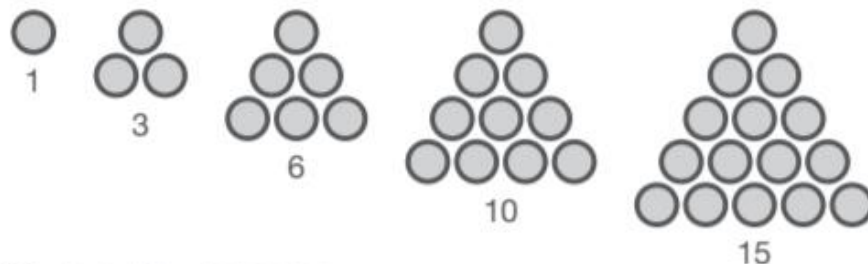
## Square Numbers

Square numbers are formed by multiplying a number by itself.



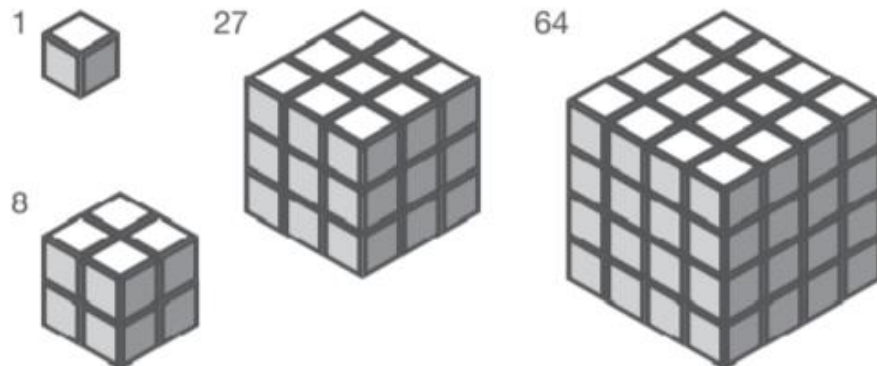
## Triangle Numbers

Triangle numbers can be represented as a triangle of dots.



## Cube Numbers

Cube numbers are formed by multiplying a digit by itself 3 times.



## Multiplication Grid

x	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

## Mathematics Symbols & Words



add  
plus  
sum



subtract  
minus  
take away



multiply  
times  
product



divide  
share  
separate



equals  
total  
same as





## Times Tables

The learning of times tables begins in Year 1 along with practical and associated tasks which aid the understanding of multiplication. Short, sharp spells of learning are the best way to master times tables, in addition there are plenty of free apps for phones and tablets to support learning in this area.

**EXAMPLE DIVISION FACTS:**  $6 \times 8 = 48$  /  $48 \div 6 = 8$  /  $48 \div 8 = 6$

<b>Two Times Table</b> $1 \times 2 = 2$ $2 \times 2 = 4$ $3 \times 2 = 6$ $4 \times 2 = 8$ $5 \times 2 = 10$ $6 \times 2 = 12$ $7 \times 2 = 14$ $8 \times 2 = 16$ $9 \times 2 = 18$ $10 \times 2 = 20$	<b>Three Times Table</b> $1 \times 3 = 3$ $2 \times 3 = 6$ $3 \times 3 = 9$ $4 \times 3 = 12$ $5 \times 3 = 15$ $6 \times 3 = 18$ $7 \times 3 = 21$ $8 \times 3 = 24$ $9 \times 3 = 27$ $10 \times 3 = 30$	<b>Four Times Table</b> $1 \times 4 = 4$ $2 \times 4 = 8$ $3 \times 4 = 12$ $4 \times 4 = 16$ $5 \times 4 = 20$ $6 \times 4 = 24$ $7 \times 4 = 28$ $8 \times 4 = 32$ $9 \times 4 = 36$ $10 \times 4 = 40$	<b>Five Times Table</b> $1 \times 5 = 5$ $2 \times 5 = 10$ $3 \times 5 = 15$ $4 \times 5 = 20$ $5 \times 5 = 25$ $6 \times 5 = 30$ $7 \times 5 = 35$ $8 \times 5 = 40$ $9 \times 5 = 45$ $10 \times 5 = 50$
<b>Six Times Table</b> $1 \times 6 = 6$ $2 \times 6 = 12$ $3 \times 6 = 18$ $4 \times 6 = 24$ $5 \times 6 = 30$ $6 \times 6 = 36$ $7 \times 6 = 42$ $8 \times 6 = 48$ $9 \times 6 = 54$ $10 \times 6 = 60$	<b>Seven Times Table</b> $1 \times 7 = 7$ $2 \times 7 = 14$ $3 \times 7 = 21$ $4 \times 7 = 28$ $5 \times 7 = 35$ $6 \times 7 = 42$ $7 \times 7 = 49$ $8 \times 7 = 56$ $9 \times 7 = 63$ $10 \times 7 = 70$	<b>Eight Times Table</b> $1 \times 8 = 8$ $2 \times 8 = 16$ $3 \times 8 = 24$ $4 \times 8 = 32$ $5 \times 8 = 40$ $6 \times 8 = 48$ $7 \times 8 = 56$ $8 \times 8 = 64$ $9 \times 8 = 72$ $10 \times 8 = 80$	<b>Nine Times Table</b> $1 \times 9 = 9$ $2 \times 9 = 18$ $3 \times 9 = 27$ $4 \times 9 = 36$ $5 \times 9 = 45$ $6 \times 9 = 54$ $7 \times 9 = 63$ $8 \times 9 = 72$ $9 \times 9 = 81$ $10 \times 9 = 90$
<b>Ten Times Table</b> $1 \times 10 = 10$ $2 \times 10 = 20$ $3 \times 10 = 30$ $4 \times 10 = 40$ $5 \times 10 = 50$ $6 \times 10 = 60$ $7 \times 10 = 70$ $8 \times 10 = 80$ $9 \times 10 = 90$ $10 \times 10 = 100$	<b>Eleven Times Table</b> $1 \times 11 = 11$ $2 \times 11 = 22$ $3 \times 11 = 33$ $4 \times 11 = 44$ $5 \times 11 = 55$ $6 \times 11 = 66$ $7 \times 11 = 77$ $8 \times 11 = 88$ $9 \times 11 = 99$ $10 \times 11 = 110$	<b>Twelve Times Table</b> $1 \times 12 = 12$ $2 \times 12 = 24$ $3 \times 12 = 36$ $4 \times 12 = 48$ $5 \times 12 = 60$ $6 \times 12 = 72$ $7 \times 12 = 84$ $8 \times 12 = 96$ $9 \times 12 = 108$ $10 \times 12 = 120$	 $6 \times 6 = 36$ $7 \times 7 = 49$ $8 \times 8 = 64$ $9 \times 9 = 81$ $10 \times 10 = 100$

**TOP TIP:** When multiplying by 5, x by 10 and halve the answer.



## Number Bonds

### Number Bonds to 10

$0 + 10 = 10$	$6 + 4 = 10$
$1 + 9 = 10$	$7 + 3 = 10$
$2 + 8 = 10$	$8 + 2 = 10$
$3 + 7 = 10$	$9 + 1 = 10$
$4 + 6 = 10$	$10 + 0 = 10$
$5 + 5 = 10$	

### Number Bonds to 20

$0 + 20 = 20$	$11 + 9 = 20$
$1 + 19 = 20$	$12 + 8 = 20$
$2 + 18 = 20$	$13 + 7 = 20$
$3 + 17 = 20$	$14 + 6 = 20$
$4 + 16 = 20$	$15 + 5 = 20$
$5 + 15 = 20$	$16 + 4 = 20$
$6 + 14 = 20$	$17 + 3 = 20$
$7 + 13 = 20$	$18 + 2 = 20$
$8 + 12 = 20$	$19 + 1 = 20$
$9 + 11 = 20$	$20 + 0 = 20$
$10 + 10 = 20$	

## Number Line

