

# Mathematical Vocabulary

Year 2

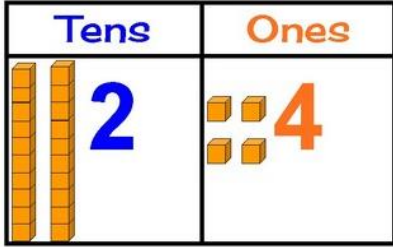


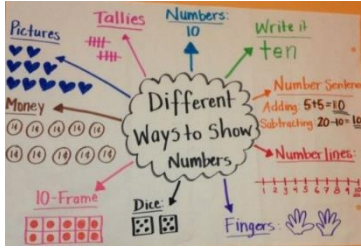
## Mathematics vocabulary list Year 2

Maths is its own language. Sometimes that language looks like written word and sometimes it looks like symbols, but it is a language and it must be learned for maths fluency and understanding.

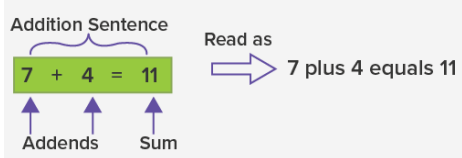
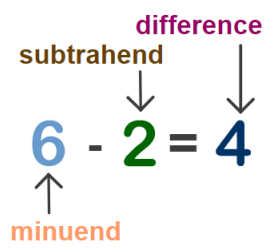
At Foundry Lane, we use stem sentences and the modelling of language in our lessons to ensure that children grasp the more challenging mathematical vocabulary.

Listed below are the key mathematical terms your child will learn this year.


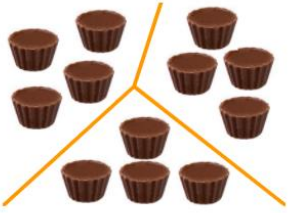
<u>Vocabulary</u>	<u>Definition</u>	<u>Example</u>
<b>Number and Place Value</b>		
Calculate	To compute or work out mathematically.	'Can you <b>calculate</b> the answer to $13 + 4$ ?'
Column	A vertical arrangement of numbers or objects.	'24 has two tens – I will place them into the tens <b>column</b> '. 
Continue	To carry something on.	'Can you <b>continue</b> this pattern?' <i>15, 20, 25, 30, 35...</i>
Efficient	Well-organised. Choosing an efficient computation strategy requires consideration of the numbers involved and will normally utilise 'known facts'.	'I will use my number bonds knowledge to calculate $22 + 7$ <b>efficiently</b> . I know that $2 + 7$ is equal to 9, so the answer is 29. That's more efficient than counting on seven.'
> Greater than	The > symbol means "greater than". It shows that one number or value is larger than another number.	'Ten is <b>greater than</b> three' $10 > 3$
< Less than	The symbol < means that one number is smaller than the other number.	'Three is <b>less than</b> 10.' $3 < 10$
One-, two- digit numbers	One-digit numbers are the numbers 0-9; two-digit numbers are the numbers 10 to 99;	'Can you give me a <b>two-digit</b> number greater than 46?'
Place value	A system for writing numbers, in which the value of a digit is defined by its position within the number.	'In the number 52 written in base ten, The digit five has a <b>value</b> of 50 and the digit two has a <b>value</b> of 2.'
Representation	A very general relationship that expresses similarities (or	

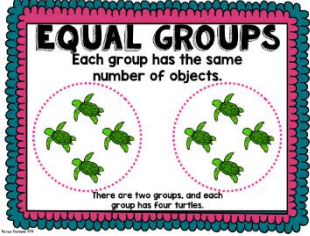
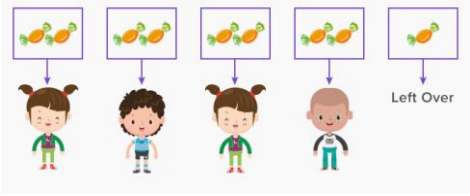
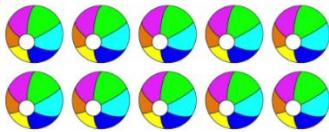
	equivalences) between mathematical objects or structures.	
Rule	Rule is the procedure that a count must follow.	'The <b>rule</b> in the sequence below is add 2. 31, 33, 35, 37, 39'.
Sequence	A list of numbers or objects in a special order.	'The <b>sequence</b> below starts at 3 and increases by 4 every time. 3, 7, 11, 15'.
Tens	The tens digit is the first digit in a 2 digit number.	'53 has 5 tens'.
Ones	The ones digit is the second digit in a 2 digit number.	'53 has 5 tens and 3 ones'. 'It also has '53' ones. 'There are 10 ones in one lot of 10'

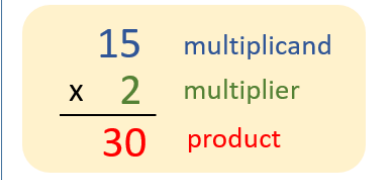
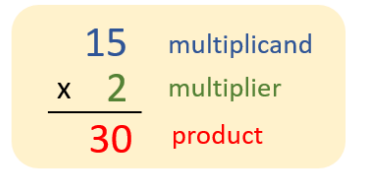
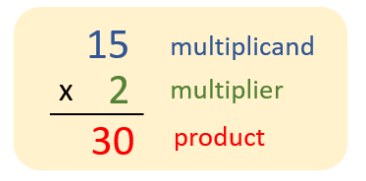
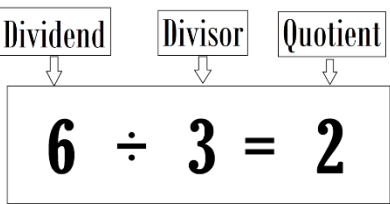
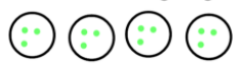
### Addition and subtraction

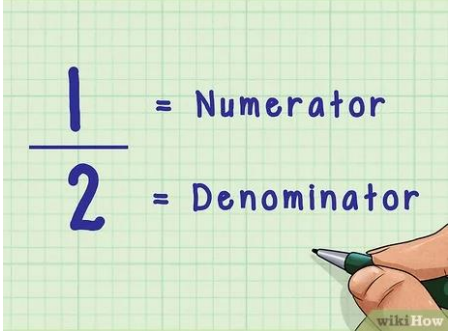
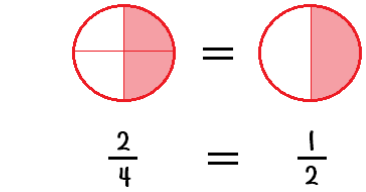
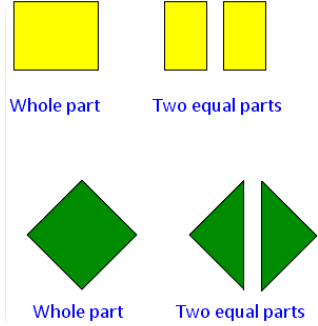
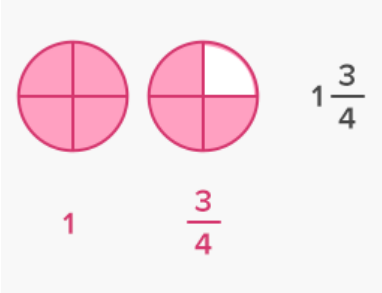
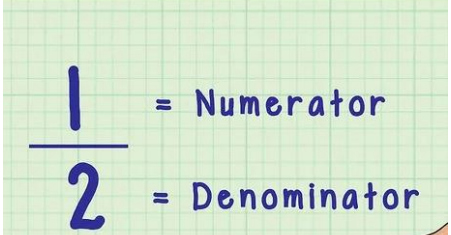
Addend	The numbers or terms added together to form the sum.	
Commutative	When the 2 addends can be swapped and the sum remains the same.	'5 + 3 and 3 + 5 are commutative'
Difference	The numerical difference between two numbers or sets of objects. It is found by comparing the quantity of one set of objects with another.	
Equals	Be the same as in number or amount.	'5 + 5 = 10' '10 = 5 + 5'
Facts	A fact family can be defined as a group of math facts or equations created using the same set of numbers.	'34 + 13 = 47 13 + 34 = 47 47 - 34 = 13 47 - 13 = 34'
Inverse operations	Opposite operations that 'undo' each other.	'Addition and subtraction are <b>inverse operations</b> .'



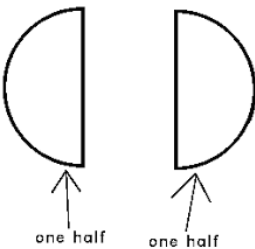
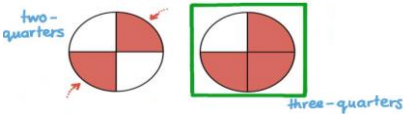
Minuend	A quantity or number from which another is to be subtracted.													
Missing number	A part of an equation that is missing.	<p>'Find the <b>missing number</b> below.'</p> $2 + \square + 7 = 14$												
Near double	When two numbers involved in an addition are close in value, such as 23 + 22. The numbers can be treated as exact doubles, followed by compensating.	<p>'To calculate <math>23 + 22</math>, I can use the <b>near double</b> strategy. I can double 22 and then add one more.'</p>												
Number bonds/pairs	A pair of numbers with a given total.	<p>'<b>Number bonds to 10</b>.'</p> <table border="0"> <tr> <td><math>0 + 10 = 10</math></td> <td><math>10 + 0 = 10</math></td> </tr> <tr> <td><math>1 + 9 = 10</math></td> <td><math>9 + 1 = 10</math></td> </tr> <tr> <td><math>2 + 8 = 10</math></td> <td><math>8 + 2 = 10</math></td> </tr> <tr> <td><math>3 + 7 = 10</math></td> <td><math>7 + 3 = 10</math></td> </tr> <tr> <td><math>4 + 6 = 10</math></td> <td><math>6 + 4 = 10</math></td> </tr> <tr> <td><math>5 + 5 = 10</math></td> <td><math>5 + 5 = 10</math></td> </tr> </table>	$0 + 10 = 10$	$10 + 0 = 10$	$1 + 9 = 10$	$9 + 1 = 10$	$2 + 8 = 10$	$8 + 2 = 10$	$3 + 7 = 10$	$7 + 3 = 10$	$4 + 6 = 10$	$6 + 4 = 10$	$5 + 5 = 10$	$5 + 5 = 10$
$0 + 10 = 10$	$10 + 0 = 10$													
$1 + 9 = 10$	$9 + 1 = 10$													
$2 + 8 = 10$	$8 + 2 = 10$													
$3 + 7 = 10$	$7 + 3 = 10$													
$4 + 6 = 10$	$6 + 4 = 10$													
$5 + 5 = 10$	$5 + 5 = 10$													
Repeated addition	A structure of multiplication where equal parts are added to make a whole.	<p>'I can show <math>4 \times 5</math> as <b>repeated addition</b>: <math>4 + 4 + 4 + 4 + 4</math>.'</p>												
Regroup	To rearrange groups in place value to carry out an operation.													
Subtract	Carry out the process of subtraction.	<p>'Nine <b>subtract</b> three is equal to six.'</p>												
Subtraction	The inverse operation to addition.	<p>'We are taking some away so it is a <b>subtraction</b> question.'</p>												
Subtrahend	A quantity or number to be subtracted from another.													

<b><i>Multiplication and division</i></b>		
Array	An arrangement of counters or numbers, in columns and rows, used to represent multiplication and division.	<p><i>'This <b>array</b> shows <math>3 \times 4</math>, <math>4 \times 3</math>, <math>12 \div 4</math> and <math>12 \div 3</math>'.</i></p> 
Divide	To share or group into equal parts.	<i>'I can <b>divide</b> 12 by three using grouping or sharing'.</i>
Dividend	A number to be divided by another number.	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">Dividend ↓</div> <div style="text-align: center;">Divisor ↓</div> <div style="text-align: center;">Quotient ↓</div> </div> <div style="border: 1px solid black; padding: 10px; text-align: center; margin: 10px auto; width: fit-content;"> <math>6 \div 3 = 2</math> </div>
Division	Distributing a group of things into equal parts.	<p><i>'Answer the <b>division</b> questions below:</i></p> <p><i>There are 12 chocolates, and 3 friends want to share them, how do they divide the chocolates?'</i></p> 
Divisor	A divisor is a number that divides another number either completely or with a remainder.	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">Dividend ↓</div> <div style="text-align: center;">Divisor ↓</div> <div style="text-align: center;">Quotient ↓</div> </div> <div style="border: 1px solid black; padding: 10px; text-align: center; margin: 10px auto; width: fit-content;"> <math>6 \div 3 = 2</math> </div>




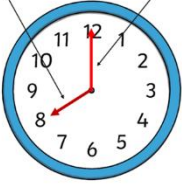
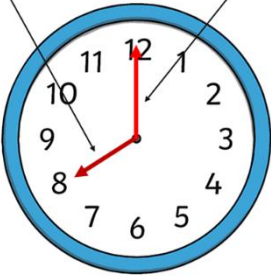

Division fact	Division number sentences related to times tables knowledge.	' $20 \div 5 = 4$ is a <b>division fact</b> '.
Equal groups of	A group is an equal group if it has the same number of items as all of the other groups.	
Left over	When dividing in maths, the groups can be the same size. Sometimes there may be a leftover.	
Multiplication fact	The answer to a multiplication calculation. For example in $3 \times 3 = 9$ , the multiplication fact is 9.	' $10 \times 7 = 70$ is a <b>multiplication fact</b> '.
Multiplication table	A list that shows the results of multiplying certain numbers by each other.	<p><b>TIMES TABLE</b></p> $2 \times 0 = 0$ $2 \times 1 = 2$ $2 \times 2 = 4$ $2 \times 3 = 6$ $2 \times 4 = 8$ $2 \times 5 = 10$ $2 \times 6 = 12$ $2 \times 7 = 14$ $2 \times 8 = 16$ $2 \times 9 = 18$ $2 \times 10 = 20$ $2 \times 11 = 22$ $2 \times 12 = 24$
Multiplication	Gives the result of combining groups of equal sizes.	$2 \times 5 = 10$  $2+2+2+2+2$

Multiple	The product result of one number multiplied by another number.	'20 is a multiple of 10 and 2. $2 \times 10 = 20$ '.
Multiplicand	A quantity which is to be multiplied by another (the multiplier).	<p><b>Parts of Multiplication</b></p> 
Multiplier	A quantity that multiplies the multiplicand.	<p><b>Parts of Multiplication</b></p> 
Multiply	Add equal groups.	' <b>Multiply</b> 5 by 2'.
Product	The result of one or more multiplications	<p><b>Parts of Multiplication</b></p> 
Quotient	A result obtained by dividing one quantity by another.	<p>Dividend      Divisor      Quotient</p> 
Sharing	To distribute fairly between a given number of recipients. This is one model for division.	<p>Draw the sharing diagram</p>  <p>Complete the number sentence</p> $12 \div 4 = 3$
Times	An arithmetic operation that is the inverse of division.	'Four <b>times</b> three equals twelve'.
<b>Fractions</b>		

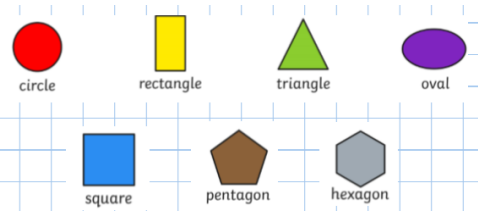

Denominator	The number written below the vinculum in a fraction. In a measure context, it indicates the number of equal parts into which the whole is divided. In a division context, it is the divisor.	
Equivalence	The condition of being equal or equivalent in value, worth.	
Equal part	Having the same portion, division, piece, or segment of a whole.	
Mixed number	A number consisting of an integer and a proper fraction.	
Non-unit fraction	A fraction with a numerator greater than one.	'Two thirds is a <b>non-unit fraction</b> .'
Numerator	The number written above the vinculum in a fraction. In a measure context, it indicates the specified number of parts out of the whole. In a division context, it is the dividend.	

One of three equal parts	When a shape is divided into three equal parts, each part is called a third.	 <hr/> <p>One-third means one of three equal parts.</p>
One third, two thirds	When a shape is divided into three equal parts, each part is called a third. Two of these parts are called two thirds.	 $\frac{2}{3}$ <p>two-thirds</p>
Two halves	Two equal parts of one whole thing.	 <p>two halves</p>
Two quarters, three quarters	When a shape is divided into four equal parts, each part is called a quarter. Two of these parts are called two quarters. Three of these parts is called three quarters.	
Unit fraction	A fraction with a numerator of one.	$\frac{1}{4}$ is a <b>unit fraction</b> .
Vinculum	A horizontal line that separates the numerator and the denominator in a fraction.	$\frac{1}{4}$ ← vinculum
<b>Length</b>		
Centimetre	A measure of length. It is about the width of a fingernail.	<i>'The length of the line is 20cm'.</i>

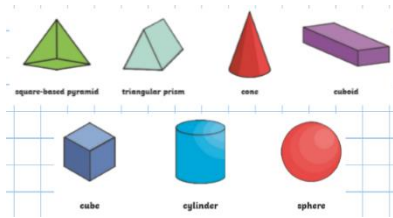
	There are 100 centimetres in a metre. The abbreviation is cm.	
Metre	A measure of length. There are 100 centimetres in a metre. The abbreviation is cm.	<i>'The length of the table leg is 1m'</i>
Shorter/smaller	Something that is smaller/shorter than something else.	<i>'The rubber is smaller than the pencil'. 'I am shorter than my teacher'.</i>
Taller/longer	Something is longer/taller than something else.	<i>'The pencil is longer than the rubber'. 'The teacher is taller than the children'.</i>
<b>Weight</b>		
Gram	A metric unit of mass. 1000g – 1kg. It can be written as 'g'	<i>'This apple weighs approximately 100 <b>grams</b>'.</i>
Heavier	Something that is heavier than other things.	<i>'The glue is heavier than the pencil'.</i>
Kilogram	A metric unit of mass. 1000g – 1kg It can be written as 'kg'.	<i>'The brick weighs 2 kilograms'.</i>
Lighter	Something that is not as heavy as something else.	<i>'The pencil is lighter than the glue'.</i>
<b>Capacity and volume</b>		
Litre	A unit of measure for volume and capacity. It can be written as 'l'. 1000ml = 1l	<i>'The capacity of the bottle is 2 litres'.</i>
Millilitre	A unit of measure for volume and capacity. It can be written as 'ml'. 1000ml = 1l	<i>'This small beaker holds about 60 <b>millilitres</b> of water'.</i>
<b>Temperature</b>		
Degree	A set change in temperature measured against a given scale	<i>'The temperature at present is 16 <b>degrees Celsius</b>'.</i>
Temperature	Measure of hotness or coldness.	<i>'The <b>temperature</b> at present is 16 degrees Celsius'.</i>
<b>Time</b>		

Analogue clock	A clock with a face and hands.	
Half past	<p>The minute hand points to 6.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>Half past one</p>  </div> <div style="text-align: center;"> <p>Half past two</p>  </div> <div style="text-align: center;"> <p>Half past three</p>  </div> </div>	
Hour	The minute hand points to 12. <i>'There are 24 hours in a day'</i> .	
Hour hand	<p style="text-align: center;"><b>Hours and Minutes</b></p> <p style="text-align: center;">This is the <b>hour</b> hand.                      This is the <b>minute</b> hand.</p> <p style="text-align: center;">It is the shortest hand on the clock.      It is longer than the hour hand.</p> 	
Minute hand	<p style="text-align: center;"><b>Hours and Minutes</b></p> <p style="text-align: center;">This is the <b>hour</b> hand.                      This is the <b>minute</b> hand.</p> <p style="text-align: center;">It is the shortest hand on the clock.      It is longer than the hour hand.</p> 	
5, 10, 15 ... minutes past		
Seconds	A unit of time.	<i>'There are 60 <b>seconds</b> in a minute'</i>



**2d shape**


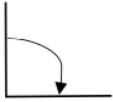
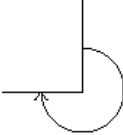
<p>Common 2D shape names: oval, circle, square, rectangle, triangle, hexagon, pentagon.</p>	<p>A 2D shape is a flat shape.</p>	
<p>Line symmetry</p>	<p>A shape is symmetrical when it fits exactly onto itself when folded in half.</p>	<p><b>This triangle has one line of symmetry.</b></p> 
<p>Properties</p>	<p>The features that you can see on the shapes.</p>	<p><i>'A square has many properties'.</i></p>
<p>Sides</p>	<p>A side is a flat line.</p>	<p><i>'A triangle has 2 sides'.</i></p>
<p>Vertices/vertex</p>	<p>A vertex is where 2 sides meet at a point.</p>	<p><i>'A square has 4 vertices'.</i></p>

**3d shape**


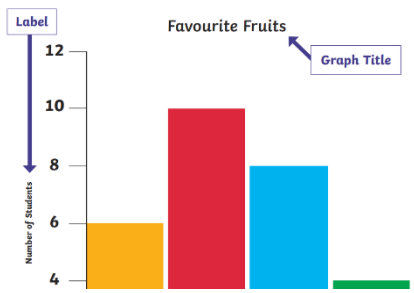
<p>Common 3D shape names: square-based pyramid, triangular prism, cone, cuboid, cube, cylinder, sphere.</p>	<p>A 3D shape has a length, width and height.</p>	
<p>Edges</p>	<p>An edge is where 2 faces meet.</p>	<p><i>'A cylinder has 2 edges'.</i></p>
<p>Faces</p>	<p>A face is a flat or curved surface.</p>	<p><i>'A sphere has 1 curved face'.</i></p>
<p>Vertices/vertex</p>	<p>A vertex is where 2 or more edges meet at a point.</p>	<p><i>'A square based pyramid has 5 vertices'.</i></p>

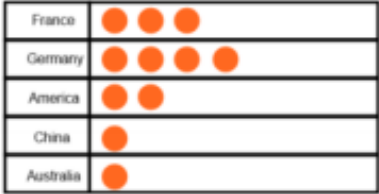
**Position and direction**

<p>Anti-clockwise</p>	<p>Movement in the opposite direction to the motion of the hands of a clock.</p>	
<p>Centre</p>	<p>A centre is a point that is the same distance from all the extremities of a figure.</p>	

Clockwise	Movement in the direction of the hands of a clock.	
Quarter turn	A 90-degree rotation, i.e. $\frac{1}{4}$ of a 360 degree 'full' turn.	
Three-quarter turn	A 270-degree rotation i.e. $\frac{3}{4}$ of a 360 degree 'full' turn.	

### Statistics

Block graph	The pre-cursor to the bar graph, this representation of data has an x- and y-axis and one block represents one item. Each block is adjoined to the adjacent block.	
Chart	A table or a graph.	<i>'I will mark one day for the sun on our weather <b>chart</b>.'</i>
Data	Quantitative information which has been counted or measured.	<i>'This block graph shows us <b>data</b> for the colour of the cars in the car park.'</i>
Label	The horizontal label across the bottom and the vertical label along the side tells us what kinds of facts are listed in a graph.	
Least common	The smallest amount or number.	<i>'No one caught the bus to school. It was the <b>least common</b> mode of transport'.</i>
Least popular	The smallest amount or number.	<i>'No one chose green as their favourite colour. It was the <b>least popular</b> option'.</i>
Most common	The biggest amount or number.	<i>'20 children walked to school. It was the <b>most common</b> mode of transport'.</i>

Most popular	The biggest amount or number.	'15 children chose red as their favourite colour. It was the <b>most popular</b> option.'															
Pictogram	A representation of data using pictures or symbols.	<p style="text-align: center;"><b>Countries people visited</b></p>  <p style="text-align: center;">Each ● stands for 10 people.</p>															
Represent	To present something in a certain way.	'We are going to <b>represent</b> the data you collected in a pictogram'.															
Table	A structure organised into columns and rows, in which data can be recorded.	<p>'The information for Thursday is not yet complete on the <b>table</b> because it is only Wednesday.'</p> <table border="1" data-bbox="887 842 1347 913"> <thead> <tr> <th>Mon</th> <th>Tues</th> <th>Weds</th> <th>Thurs</th> </tr> </thead> <tbody> <tr> <td>5</td> <td>7</td> <td>4</td> <td></td> </tr> </tbody> </table>	Mon	Tues	Weds	Thurs	5	7	4								
Mon	Tues	Weds	Thurs														
5	7	4															
Tally	A form of counting. Each tally is a vertical mark. After the fourth vertical mark, a fifth horizontal/diagonal mark is drawn to create a group of five.	<p>'The tally chart shows that blue was the most popular colour.'</p> <table border="1" data-bbox="895 1021 1315 1272"> <tbody> <tr> <td>Yellow</td> <td>   </td> <td>4</td> </tr> <tr> <td>Red</td> <td>    </td> <td>5</td> </tr> <tr> <td>Blue</td> <td>     /</td> <td>6</td> </tr> <tr> <td>Green</td> <td> </td> <td>1</td> </tr> <tr> <td>Pink</td> <td>   </td> <td>4</td> </tr> </tbody> </table>	Yellow		4	Red		5	Blue	/	6	Green		1	Pink		4
Yellow		4															
Red		5															
Blue	/	6															
Green		1															
Pink		4															
Title	The title of a graph tells you what the graph is about.	<p style="text-align: center;"><b>Zoo Data</b></p> 