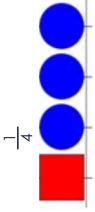
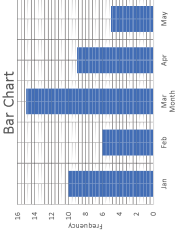
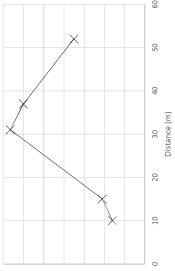
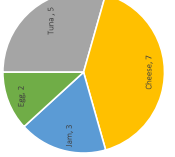


KPI 8.10 Percentages Calculations		
1) Multiplier	A percentage written as a decimal is the percentage multiplier.	The percentage multiplier multiplied by the amount.
3) Percentage change	$\frac{\text{difference}}{\text{original}} \times 100$	$\text{original} = \frac{\text{new amount}}{\text{multiplier}}$
	2) Percentage of an amount with a calculator	
	4) Reverse percentages	

KPI 8.11 Ratio 1		
1) Ratio	A part-to-part comparison. The ratio of a to b is written a:b	Fraction of shapes which are squares:  Fraction of shapes which are circles: $\frac{3}{4}$
3) Equivalent ratios	Found by multiplying or dividing all parts of the ratio by the same number.	2) Ratio as a fraction
4) Simplifying ratios	Ratios can be simplified by dividing each part of the ratio by the same number. $25 : 15$ → $5 : 3$ (+5) $5 : 3$ (+5)	Add the parts together. Divide the total by this. Multiply this by each part of the ratio. Share £18 in the ratio of 5:4 Add the part → $4 + 5 = 9$ parts $£18 \div 9 = £2$ → 1 part = £2 5 parts: $5 \times £2 = £10$ 4 parts: $4 \times £2 = £8$ £10: £8
6) Unitary Ratio	Write the ratio 5:3 in the form 1:n $5 : 3$ → $1 : \frac{3}{5}$ (+5)	5) Sharing into a given ratio

KPI 8.12 Area of Circles																									
1) Trapezium	Quadrilateral with one pair of parallel sides.																								
3) Area of trapezium	Sum of the parallel sides. Divide by 2. Multiply by the vertical height.																								
4) Area of a circle	$A = \pi r^2$ $A = \pi \times r^2$ $A = 81\pi \text{ cm}^2$																								
6) Area of a quarter-circle	$A = \frac{\pi r^2}{4}$																								
KPI 8.12 Area of Circles																									
2) Isosceles trapezium	Quadrilateral with one pair of parallel side and two right angles.																								
4) Area of a semi-circle	$A = \frac{\pi r^2}{2}$																								
7) Area of a three-quarter circle	$A = \frac{3\pi r^2}{4}$																								
KPI 8.13 Statistics 1																									
1) Frequency table	<p>A table showing how often (frequent) something occurs. Can include tally charts.</p> <table border="1"> <thead> <tr> <th>Score</th> <th>Tally</th> <th>Frequency (f)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td> </td> <td>4</td> </tr> <tr> <td>2</td> <td> </td> <td>5</td> </tr> <tr> <td>3</td> <td> </td> <td>6</td> </tr> <tr> <td>4</td> <td> </td> <td>8</td> </tr> <tr> <td>5</td> <td> </td> <td>3</td> </tr> <tr> <td>6</td> <td> </td> <td>1</td> </tr> </tbody> </table>	Score	Tally	Frequency (f)	1		4	2		5	3		6	4		8	5		3	6		1			
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1		4																							
2		5																							
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5		3																							
6		1																							
2) Bar chart	<p>A way of displaying data, using horizontal or vertical bars which are the same width and have gaps between them.</p> <p>Data can also be presented in dual and composite bar charts in which case a key word would be used.</p> 																								
3) Line graph	<p>Uses lines to join points on a graph to represent a data set.</p> 																								
4) Pie chart	<p>Method of displaying proportional information by dividing a circle up into different-sized sectors.</p> 																								
5) Stem and Leaf diagrams	<p>Presents data in a table where the place value columns are split. For example, the tens and the ones columns may be split where the tens become the "stem" and the ones become the "leaf". Stem and leaf diagrams come with a key and must always be written in order.</p> <table border="1"> <thead> <tr> <th>12</th> <th>5</th> <th>5</th> <th>6</th> </tr> </thead> <tbody> <tr> <td>34</td> <td>31</td> <td>0</td> <td>5 6</td> </tr> <tr> <td>27</td> <td>22</td> <td>1</td> <td>2 9</td> </tr> <tr> <td>19</td> <td>6</td> <td>2</td> <td>2 7</td> </tr> <tr> <td>39</td> <td>40</td> <td>3</td> <td>1 4 9</td> </tr> <tr> <td></td> <td></td> <td>4</td> <td>0</td> </tr> </tbody> </table> <p style="text-align: right;">Key 2 9 = 29</p>	12	5	5	6	34	31	0	5 6	27	22	1	2 9	19	6	2	2 7	39	40	3	1 4 9			4	0
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