


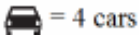

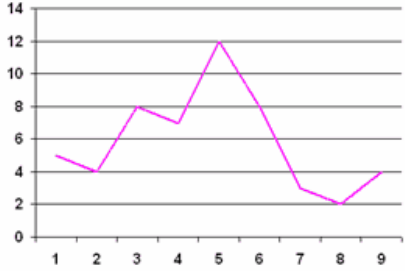


## KS3 Unit 13 Charts & Unit 16 Pie Charts

Topic/Skill	Definition/Tips	Example																																						
1. Frequency Table	A record of <b>how often each value</b> in a set of data <b>occurs</b> .	<table border="1"> <thead> <tr> <th>Number of marks</th> <th>Tally marks</th> <th>Frequency</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>       </td> <td>7</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>5</td> </tr> <tr> <td>5</td> <td>   </td> <td>3</td> </tr> <tr> <td><b>Total</b></td> <td></td> <td><b>26</b></td> </tr> </tbody> </table>	Number of marks	Tally marks	Frequency	1		7	2		5	3		6	4		5	5		3	<b>Total</b>		<b>26</b>																	
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2. Bar Chart	Represents data as vertical blocks.  <i>x – axis</i> shows the <b>type</b> of data <i>y – axis</i> shows the <b>frequency</b> for each type of data Each bar should be the <b>same width</b> There should be <b>gaps</b> between each bar Remember to <b>label</b> each axis.	<table border="1"> <caption>Data for Bar Chart: Frequency of Pets Owned</caption> <thead> <tr> <th>Number of pets owned</th> <th>Frequency</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>3</td> </tr> <tr> <td>1</td> <td>8</td> </tr> <tr> <td>2</td> <td>12</td> </tr> <tr> <td>3</td> <td>1</td> </tr> <tr> <td>4</td> <td>2</td> </tr> </tbody> </table>	Number of pets owned	Frequency	0	3	1	8	2	12	3	1	4	2																										
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3. Types of Bar Chart	<p><b>Compound/Composite</b> Bar Charts show data stacked on top of each other.</p> <p><b>Comparative/Dual</b> Bar Charts show data side by side.</p>	<p><b>Stacked Bar Chart Data:</b></p> <table border="1"> <thead> <tr> <th>Sample</th> <th>Aluminum (g)</th> <th>Carbon (g)</th> <th>Iron (g)</th> <th>Total (g)</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>25</td> <td>20</td> <td>15</td> <td>60</td> </tr> <tr> <td>B</td> <td>20</td> <td>15</td> <td>10</td> <td>45</td> </tr> <tr> <td>C</td> <td>25</td> <td>20</td> <td>25</td> <td>70</td> </tr> </tbody> </table> <p><b>Dual Bar Chart Data (Rainfall in cm):</b></p> <table border="1"> <thead> <tr> <th>Month</th> <th>London (cm)</th> <th>Bristol (cm)</th> </tr> </thead> <tbody> <tr> <td>Jan</td> <td>15</td> <td>12</td> </tr> <tr> <td>Feb</td> <td>20</td> <td>18</td> </tr> <tr> <td>Mar</td> <td>30</td> <td>25</td> </tr> <tr> <td>Apr</td> <td>40</td> <td>35</td> </tr> <tr> <td>May</td> <td>45</td> <td>48</td> </tr> </tbody> </table>	Sample	Aluminum (g)	Carbon (g)	Iron (g)	Total (g)	A	25	20	15	60	B	20	15	10	45	C	25	20	25	70	Month	London (cm)	Bristol (cm)	Jan	15	12	Feb	20	18	Mar	30	25	Apr	40	35	May	45	48
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4. Pie Chart	Used for showing <b>how data breaks down into</b> its constituent <b>parts</b> .  When drawing a pie chart, <b>divide 360° by the total frequency</b> . This will tell you how many degrees to use for the frequency of each category.  Remember to <b>label</b> the category that each sector in the pie chart represents.	<p><b>Pie Chart Data:</b></p> <table border="1"> <thead> <tr> <th>Sport</th> <th>Angle (degrees)</th> </tr> </thead> <tbody> <tr> <td>Football</td> <td>144°</td> </tr> <tr> <td>Netball</td> <td>80°</td> </tr> <tr> <td>Hockey</td> <td>60°</td> </tr> <tr> <td>Tennis</td> <td>40°</td> </tr> <tr> <td>Squash</td> <td>36°</td> </tr> </tbody> </table> <p>If there are 40 people in a survey, then each person will be worth <math>360 \div 40 = 9^\circ</math> of the pie chart.</p>	Sport	Angle (degrees)	Football	144°	Netball	80°	Hockey	60°	Tennis	40°	Squash	36°																										
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<p>5. Pictogram</p>	<p>Uses <b>pictures</b> or symbols to <b>show the value</b> of the data.</p> <p>A pictogram must have a <b>key</b>.</p>	<p>Black </p> <p>Red </p> <p>Green   = 4 cars</p> <p>Others </p>																																																
<p>6. Line Graph</p>	<p>A graph that uses <b>points connected by straight lines</b> to show how data changes in values.</p> <p>This can be used for <b>time series data</b>, which is a series of data points spaced over uniform time intervals in <b>time order</b>.</p>																																																	
<p>7. Two Way Tables</p>	<p>A table that <b>organises data</b> around <b>two categories</b>.</p> <p>Fill out the information step by step using the information given.</p> <p>Make sure all the totals add up for all columns and rows.</p>	<p>Question: Complete the 2 way table below.</p> <table border="1" data-bbox="954 707 1422 801"> <thead> <tr> <th></th> <th>Left Handed</th> <th>Right Handed</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Boys</td> <td>10</td> <td></td> <td>58</td> </tr> <tr> <td>Girls</td> <td></td> <td></td> <td></td> </tr> <tr> <td><b>Total</b></td> <td></td> <td>84</td> <td>100</td> </tr> </tbody> </table> <p>Answer: Step 1, fill out the easy parts (the totals)</p> <table border="1" data-bbox="954 819 1422 913"> <thead> <tr> <th></th> <th>Left Handed</th> <th>Right Handed</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Boys</td> <td>10</td> <td>48</td> <td>58</td> </tr> <tr> <td>Girls</td> <td></td> <td></td> <td>42</td> </tr> <tr> <td><b>Total</b></td> <td>16</td> <td>84</td> <td>100</td> </tr> </tbody> </table> <p>Answer: Step 2, fill out the remaining parts</p> <table border="1" data-bbox="954 931 1422 1021"> <thead> <tr> <th></th> <th>Left Handed</th> <th>Right Handed</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Boys</td> <td>10</td> <td>48</td> <td>58</td> </tr> <tr> <td>Girls</td> <td>6</td> <td>36</td> <td>42</td> </tr> <tr> <td><b>Total</b></td> <td>16</td> <td>84</td> <td>100</td> </tr> </tbody> </table>		Left Handed	Right Handed	Total	Boys	10		58	Girls				<b>Total</b>		84	100		Left Handed	Right Handed	Total	Boys	10	48	58	Girls			42	<b>Total</b>	16	84	100		Left Handed	Right Handed	Total	Boys	10	48	58	Girls	6	36	42	<b>Total</b>	16	84	100
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