

Y6 – Summer – Block 3 – Step 1 – Read and interpret line graphs Answers

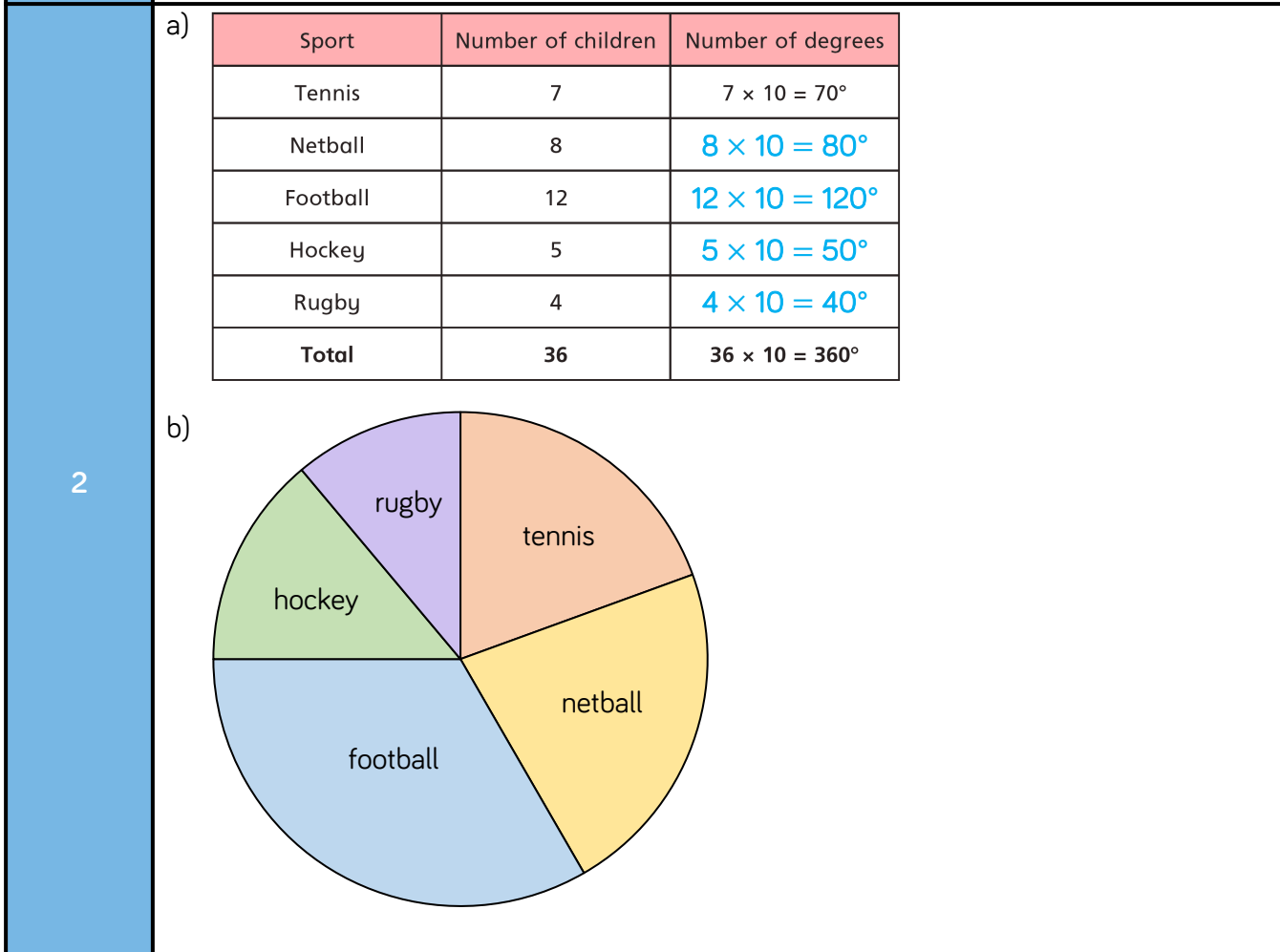
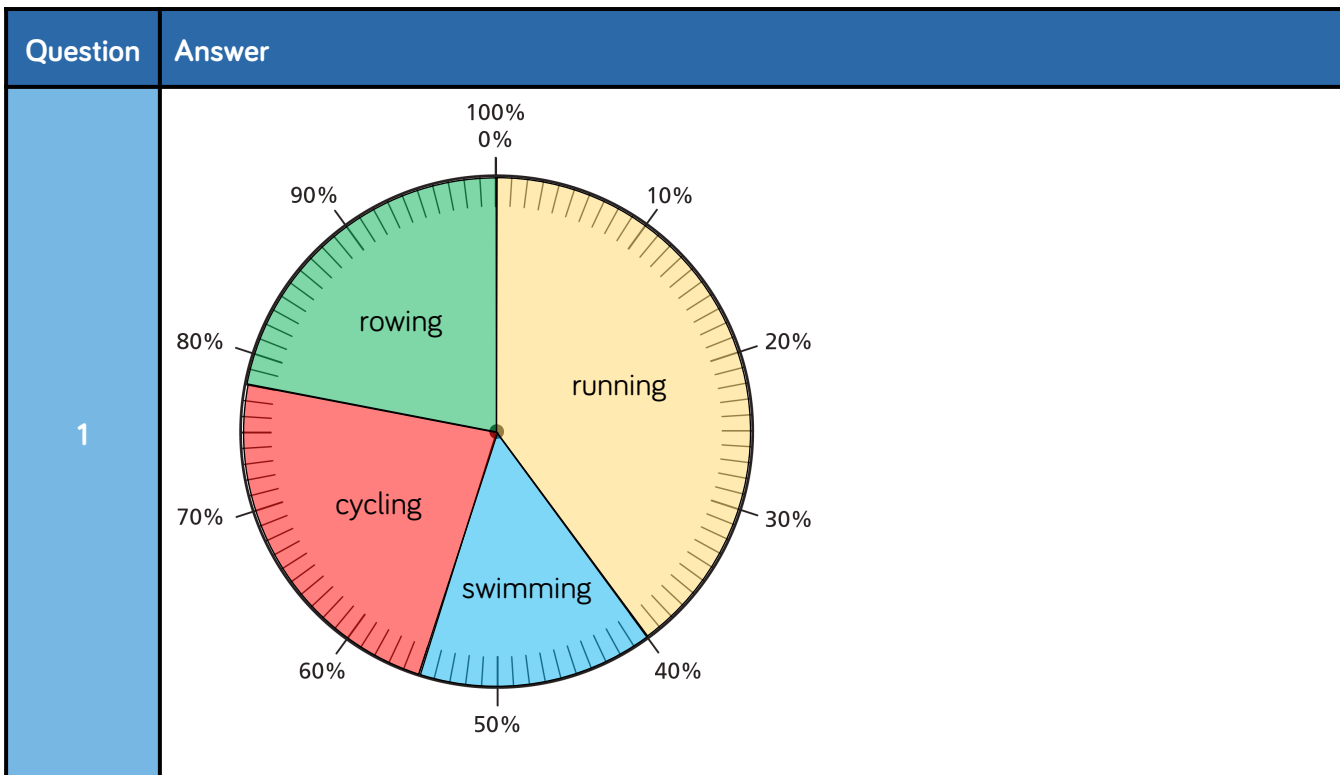
Question	Answer
1	a) 4 °C b) 2 °C c) 11:00 am and 3:00 pm d) every 2 hours
2	a) 175 m b) 2:30 pm c) 11 am and noon She was at 0 m above sea level. d) No. The start and end of the walk were at different heights above sea level.
3	a) 2002 b) 2012 and 2020 c) car 1 d) approximately 10 years e) No. The value of car 2 decreased from £15,000 to £10,000, and half of £15,000 is £7,500 The vertical scale does not start from zero.
4	child's story to match the graph, with labels for axes and appropriate questions

Y6 – Summer – Block 3 – Step 4 – Circles Answers

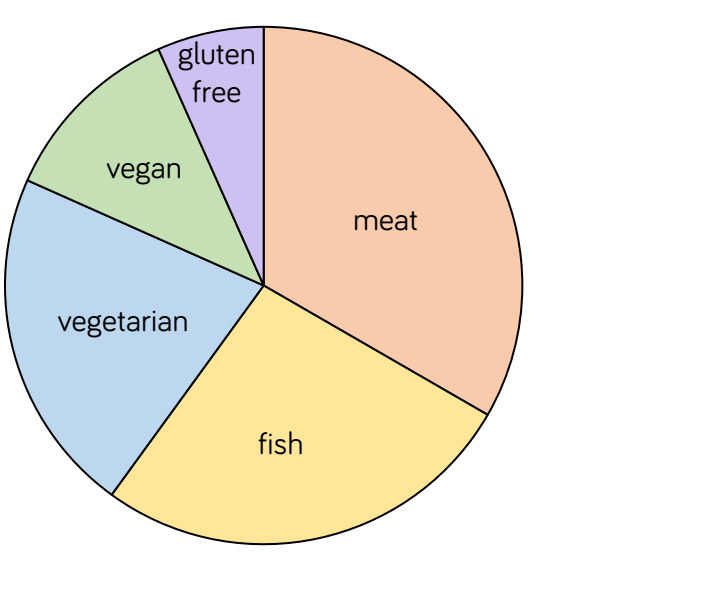
Question	Answer												
1	<p>The diagram shows a circle with a central black dot labeled 'centre'. A green line passes through the center from one side of the circumference to the other, labeled 'diameter'. A red line starts at the center and goes to the circumference, labeled 'radius'. The blue outline of the circle is labeled 'circumference'.</p>												
2	<p>false The radius goes from the centre to the circumference of the circle. Only circle A shows the radius.</p>												
3	<p>false The diameter is a straight line between two points on the circumference, passing through the centre of the circle. Circles B and C show the diameter.</p>												
4	<p>No. If the radius is 12 cm, the diameter = $2 \times 12 = 24$ cm.</p>												
5	<table border="1" data-bbox="211 1031 518 1353"> <thead> <tr> <th>Radius</th> <th>Diameter</th> </tr> </thead> <tbody> <tr> <td>4 cm</td> <td>8 cm</td> </tr> <tr> <td>6 m</td> <td>12 m</td> </tr> <tr> <td>4.5 mm</td> <td>9 mm</td> </tr> <tr> <td>3.5 km</td> <td>7 km</td> </tr> <tr> <td>6.3 cm</td> <td>12.6 cm</td> </tr> </tbody> </table>	Radius	Diameter	4 cm	8 cm	6 m	12 m	4.5 mm	9 mm	3.5 km	7 km	6.3 cm	12.6 cm
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6	<p>The radius of the inner circle is 6 cm. The diameter of the inner circle is 12 cm. The radius of the outer circle is 8 cm. The diameter of the outer circle is 16 cm.</p>												
7	<p>a) No. Her line does not go through the centre of the circle. b) The diameter is the greatest distance from one side of the circle to the other.</p>												
8	<p>Yes. The diameter is always twice the radius.</p>												
9	<p>5 small circles</p>												

Y6 – Summer – Block 3 – Step 5 – Read and interpret pie charts Answers

Question	Answer
1	a) 18 b) 12 c) $\frac{1}{8}$ d) $\frac{2}{8} = \frac{1}{4}$
2	a) 240 people b) 720 people c) $\frac{2}{5}$
3	a) No. 80 children from Hockton Primary walk, and 120 children from Turleton Academy walk. b) Hockton Primary 40 Turleton Academy 40
4	a) 90 counters b) 30 counters c) There are half as many blue counters as red counters. There are three times as many yellow counters as blue counters.



Question	Answer																		
3	<p>a)</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #d1c4e9;">Fuel type</th> <th style="background-color: #d1c4e9;">Frequency</th> <th style="background-color: #d1c4e9;">Number of degrees</th> </tr> </thead> <tbody> <tr> <td>Diesel</td> <td style="text-align: center;">11</td> <td style="color: #00aaff;">$11 \times 9 = 99^\circ$</td> </tr> <tr> <td>Petrol</td> <td style="text-align: center;">20</td> <td style="color: #00aaff;">$20 \times 9 = 180^\circ$</td> </tr> <tr> <td>Electric battery</td> <td style="text-align: center;">8</td> <td style="color: #00aaff;">$8 \times 9 = 72^\circ$</td> </tr> <tr> <td>Hydrogen fuel cell</td> <td style="text-align: center;">1</td> <td style="color: #00aaff;">$1 \times 9 = 9^\circ$</td> </tr> <tr> <td style="text-align: center;">Total</td> <td style="text-align: center;">40</td> <td style="text-align: center;">$40 \times$ 9 $= 360^\circ$</td> </tr> </tbody> </table>	Fuel type	Frequency	Number of degrees	Diesel	11	$11 \times 9 = 99^\circ$	Petrol	20	$20 \times 9 = 180^\circ$	Electric battery	8	$8 \times 9 = 72^\circ$	Hydrogen fuel cell	1	$1 \times 9 = 9^\circ$	Total	40	$40 \times $ 9 $= 360^\circ$
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	<p>b)</p> <p style="margin-left: 20px;">hydrogen fuel cell</p> <p>The pie chart is divided into four segments: a large yellow segment labeled 'petrol', a medium orange segment labeled 'diesel', a smaller blue segment labeled 'electric battery', and a very thin green segment labeled 'hydrogen fuel cell' with a pointer line.</p>																		

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4	a)	<table border="1"> <thead> <tr> <th data-bbox="257 182 499 238">Meal choice</th> <th data-bbox="499 182 735 238">Frequency</th> <th data-bbox="735 182 971 238">Number of degrees</th> </tr> </thead> <tbody> <tr> <td data-bbox="257 238 499 300">Meat</td> <td data-bbox="499 238 735 300">20</td> <td data-bbox="735 238 971 300">120°</td> </tr> <tr> <td data-bbox="257 300 499 362">Fish</td> <td data-bbox="499 300 735 362">16</td> <td data-bbox="735 300 971 362">96°</td> </tr> <tr> <td data-bbox="257 362 499 424">Vegetarian</td> <td data-bbox="499 362 735 424">13</td> <td data-bbox="735 362 971 424">78°</td> </tr> <tr> <td data-bbox="257 424 499 486">Vegan</td> <td data-bbox="499 424 735 486">7</td> <td data-bbox="735 424 971 486">42°</td> </tr> <tr> <td data-bbox="257 486 499 549">Gluten free</td> <td data-bbox="499 486 735 549">4</td> <td data-bbox="735 486 971 549">24°</td> </tr> <tr> <td data-bbox="257 549 499 580">Total</td> <td data-bbox="499 549 735 580">60</td> <td data-bbox="735 549 971 580">360°</td> </tr> </tbody> </table>		Meal choice	Frequency	Number of degrees	Meat	20	120°	Fish	16	96°	Vegetarian	13	78°	Vegan	7	42°	Gluten free	4	24°	Total	60	360°
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b)	 <p>A pie chart representing the data from the table above. The chart is divided into five segments: 'meat' (orange, 120°), 'fish' (yellow, 96°), 'vegetarian' (light blue, 78°), 'vegan' (light green, 42°), and 'gluten free' (light purple, 24°). Each segment is labeled with its corresponding meal choice.</p>																							

Y6 – Summer – Block 3 – Step 8 – The mean Answers

Question	Answer						
1	The mean number of counters is 4						
2	a) 4 b) 9 c) 5.1						
3	86						
4	a) 36 b) multiple possible answers, e.g.: 7, 8, 10, 11 1, 3, 5, 27 There are a large number of possible answers.						
5	4						
6	<table border="1"><tr><td>13</td><td>11</td><td>4</td><td>16</td><td>6</td><td>22</td></tr></table>	13	11	4	16	6	22
13	11	4	16	6	22		
7	a) 180 b) 70						
8	a) The mean height will increase. b) The mean height will stay the same. c) The mean height will decrease.						