Pie Charts (F)

A collection of 9-1 Maths GCSE Sample and Specimen questions from AQA, OCR, Pearson-Edexcel and WJEC Eduqas.

<table>
<thead>
<tr>
<th>Name:</th>
<th>ELAINE BROOKES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Marks:</td>
<td></td>
</tr>
</tbody>
</table>

1. Cambury Council asked 60 customers what they thought of the local leisure centre. The results are shown in this bar chart.

\[ \frac{360}{60} = 6 \]

Draw and label a pie chart to represent this data.

- Excellent = \(13 \times 6 = 78^\circ\)
- Good = \(30 \times 6 = 180^\circ\)
- Could be improved = \(10 \times 6 = 60^\circ\)
- Not good enough = \(7 \times 6 = 42^\circ\)
2. There are 90 fruit trees in the orchard.

<table>
<thead>
<tr>
<th>Apple tree</th>
<th>Pear tree</th>
<th>Plum tree</th>
</tr>
</thead>
<tbody>
<tr>
<td>45 \times 4</td>
<td>20 \times 4</td>
<td>25 \times 4</td>
</tr>
</tbody>
</table>

\[
\frac{360}{90} = 4
\]

\[
= 180^\circ = 80^\circ = 100^\circ
\]

Draw an accurate pie chart for this information.
3. Rachel carried out a survey of 10 people to find out the type of fruit they like best. The table gives information about her results.

<table>
<thead>
<tr>
<th>Type of fruit</th>
<th>Number of people</th>
</tr>
</thead>
<tbody>
<tr>
<td>apple</td>
<td>2</td>
</tr>
<tr>
<td>banana</td>
<td>5</td>
</tr>
<tr>
<td>orange</td>
<td>3</td>
</tr>
</tbody>
</table>

Pete also carried out a survey to find out the type of fruit people like best. He asked 30 people which type of fruit they like best. He drew this pie chart for his results.

A smaller proportion of people like bananas best in Pete's survey than in Rachel's survey.

Explain how Pete's pie chart and Rachel's table show this.

In Rachel's table 5 out of 10 people liked banana best, this is 50%. In Pete's pie chart less than 50% liked bananas best. Therefore a smaller proportion of people like bananas best in Pete's survey than in Rachel's survey.
4. The pie chart shows information about the sales of 800 tickets.

There were twice as many adult ticket sales as senior ticket sales.

(a) Show that there were 140 senior ticket sales.

\[
\frac{63}{360} \times 800 = \frac{140}{3} = 46.67
\]

(b) Draw a bar chart on the grid to represent the child, adult and senior ticket sales.

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Pie Charts (F) - Version 3 January 2016
5. The pie chart shows some information about the share of votes for candidates in an election.

![Pie Chart](image)

The angle for Mrs Wood would be 24° more than the angle for Mrs Patel. There were 5220 votes in total.

Work out the number of votes for Mrs Patel.

\[
x + x + 24 + 64 = 360 \\
2x + 88 = 360 \\
2x = 360 - 88 \\
2x = 272 \\
x = 136°
\]

Mrs Patel = \( \frac{136}{360} \times 5220 \)

= 1972