JustMaths

Pie Charts (F)

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

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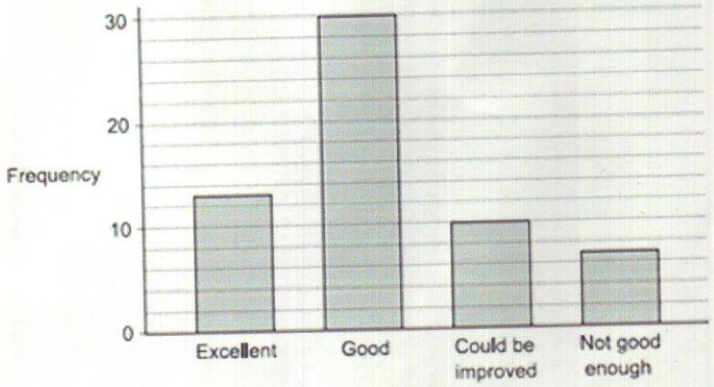
Total Marks:	

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

$\frac{360}{60} = 6$



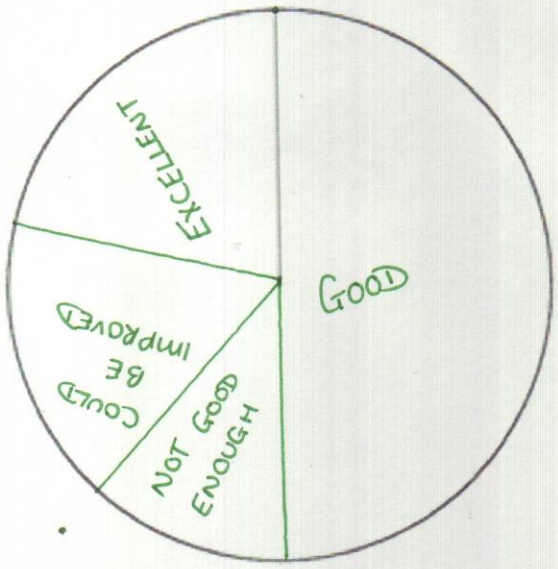
Draw and label a pie chart to represent this data.

Excellent $= 13 \times 6$
$= 78°$

Good $= 30 \times 6$
$= 180°$

Could be improved $= 10 \times 6$
$= 60°$

Not good enough $= 7 \times 6$
$= 42°$



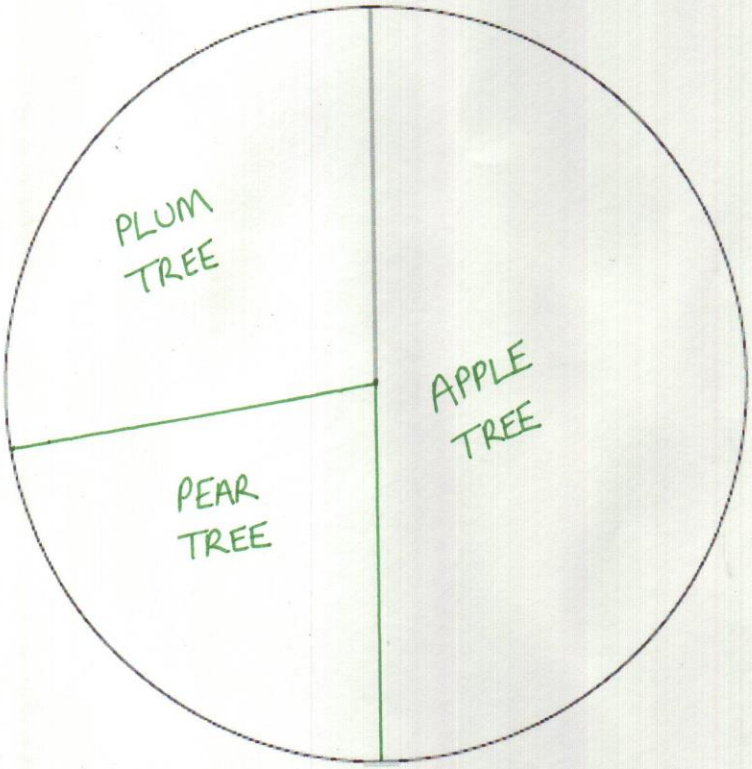
[5]

2. There are 90 fruit trees in the orchard.

Apple tree	Pear tree	Plum tree
45×4	20×4	25×4
$= 180°$	$= 80°$	$= 100°$

$\frac{360}{90} = 4$

Draw an accurate pie chart for this information.



[3]

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.

Type of fruit	Number of people
apple	2
banana	5
orange	3

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.

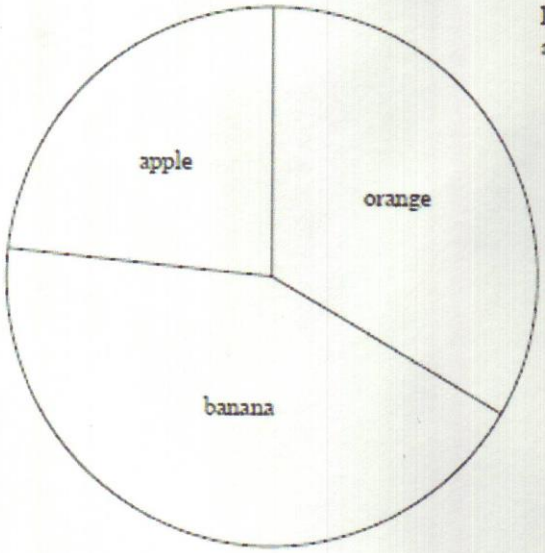


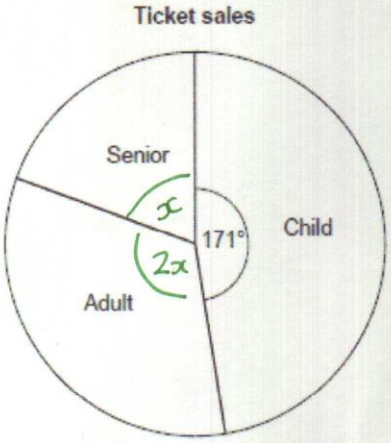
Diagram accurately drawn

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. [2]

4. The pie chart shows information about the sales of 800 tickets.



$x + 2x = 360 - 171$

$3x = 189$

$x = \frac{189}{3}$

$x = 63°$

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

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

$\frac{63}{360} \times 800 =$ number of senior ticket sales $\quad$ 140 = senior ticket sales [3]

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

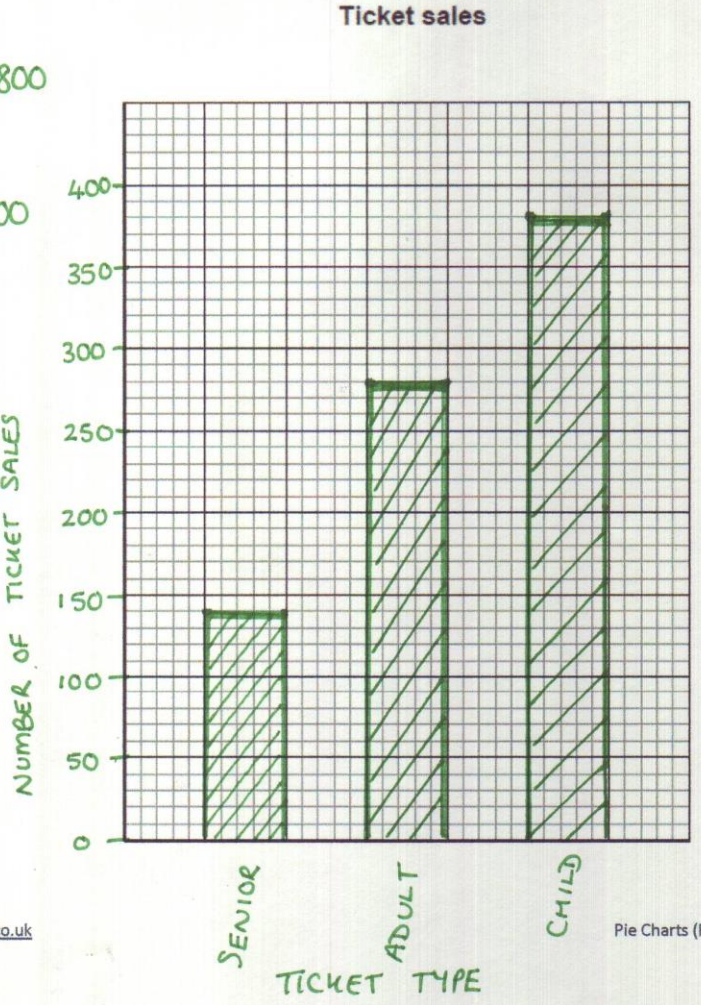
Senior = 140

Adult = $\frac{126}{360} \times 800$

= 280

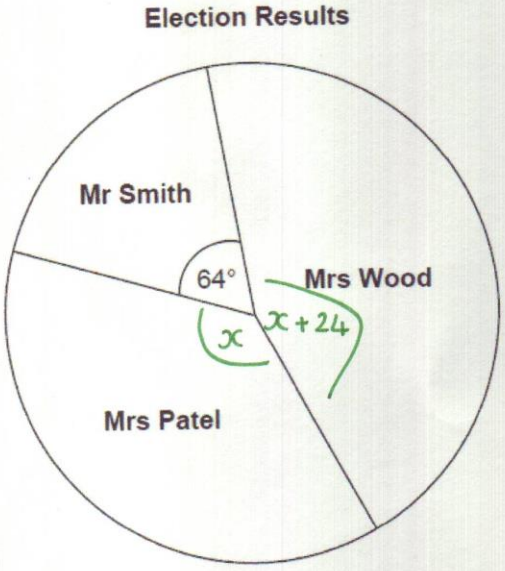
Child = $\frac{171}{360} \times 800$

= 380



[4]

5. The pie chart shows some information about the share of votes for candidates in an election.



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.

$x + x + 24 + 64 = 360$

$2x + 88 = 360$

$2x = 360 - 88$

$2x = 272$

$x = 136°$

[4]

$\text{Mrs Patel} = \frac{136}{360} \times 5220$

$= 1972$