1. All year 8 were asked to vote for an end of year trip.

The table shows information about their choices.

| Trip | Number of Students | angle | bearing |
| :---: | :---: | :---: | :---: |
| Ice skating | 19 |  |  |
| Theme Park | 63 |  | $\ldots$ |
| Water World | 98 |  |  |
| total $\rightarrow$ |  | $360{ }^{\circ}$ |  |

Draw an accurate pie chart to show the information in the table.
(i) Work out the scale factor. \{Use the empty proportional triangle if it helps you.\}

(ii) Calculate the angles.
(iii) Calculate the bearings and draw the sectors. \{Bearings help with accuracy\}
(iv) Label the sectors.

2. Taylor asked 30 people to choose one pudding from her list.

Here are her results.

| pudding | frequency | angle | bearing |
| :---: | :---: | :---: | :---: |
| fruit | 8 |  |  |
| sponge | 19 |  |  |
| yogurt | 3 |  |  |
| total $\rightarrow$ |  | $\xrightarrow{\times} 360^{\circ}$ |  |

Draw an accurate pie chart to show her results. (i) Work out the scale factor. \{Use the empty proportional triangle if it helps you.\}

(ii) Calculate the angles.
(iii) Calculate the bearings and draw the sectors. \{Bearings help with accuracy\}
(iv) Label the sectors.

3. 90 interviewers were asked people to name the first team sport they thought of.

Here are the sports they named.

|  | Basketball | Cricket | Football | Rugby | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Frequency | 19 | 17 | 34 | 20 |  |
| Angle |  |  |  |  |  |
| bearing 0 | $00{ }^{\circ}$ |  | - | $360{ }^{\circ}$ |  |

Draw an accurate pie chart to show this information.
(i) Work out the scale factor. \{Use the empty proportional triangle if it helps you.\}

(ii) Calculate the angles.
(iii) Calculate the bearings and draw the sectors. \{Bearings help with accuracy\}
(iv) Label the sectors.

4. 36 people had to choose a meal at a fund raiser.

The table shows information about their choices.

|  | Curry | Fish'n'chips | Pad Thai | Pie'n'mash | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Frequency | 13 | 7 | 5 | 11 |  |
| Angle |  |  |  |  |  |
| Bearing |  | - | - | 3 |  |

Draw an accurate pie chart to show the information in the table.
(i) Work out the scale factor. \{Use the empty proportional triangle if it helps you.\}

(ii) Calculate the angles.
(iii) Calculate the bearings and draw the sectors. \{Bearings help with accuracy\}
(iv) Label the sectors.


## Answers

1. (i) 2 (ii) angles: $38,126,196$ (iii) bearings: 38,164
2. (i) 4 (ii) angles: $76,68,136,80$ (iii) bearings: $76,144,280$
3. (i) 12 (ii) angles: $96,228,36$ (iii) bearings: 96,324
4. (i) 10 (ii) angles: $130,70,50,110$ (iii) bearings: $130,200,250$
