

1. Tuki did work experience at a vets.

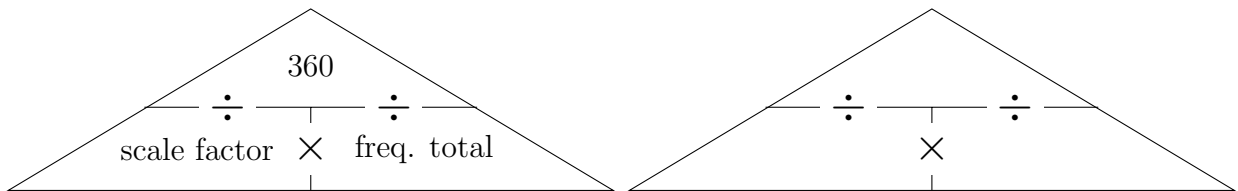
She did a survey of the pets she saw in the waiting room one day.

Here are her results.

Pet	Frequency	angle	bearing
Cat	7		← 000°
Dog	9		←°
Other	4		←°
total →		× → 360°	← 360°

Draw an accurate pie chart to show the information in the table.

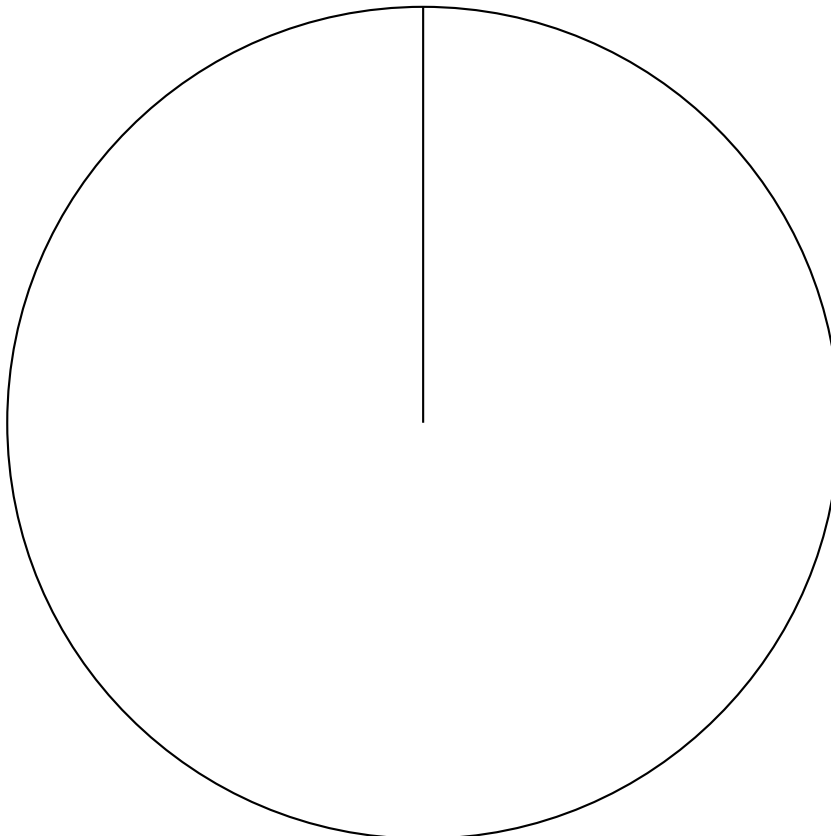
(i) Work out the scale factor. {Use the empty proportional triangle if it helps you.}



(ii) Calculate the angles.

(iii) Calculate the bearings and draw the sectors. {Bearings help with accuracy}

(iv) Label the sectors.

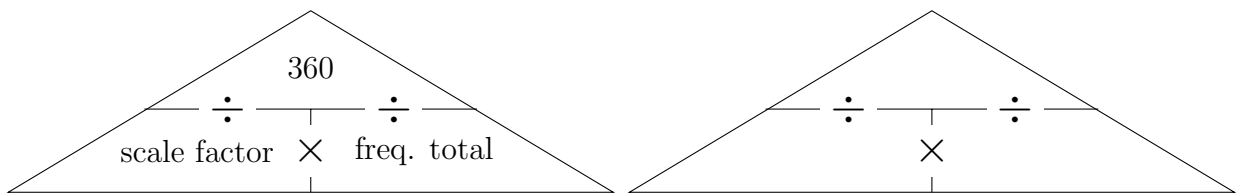


2. 72 people at a climate change demonstration requested government to help with one change. Here are their choices.

Change	frequency	angle	bearing
Diet	11		← 000°
Family Size	28		←°
Travel	27		←°
Work	6		←°
total →		× → 360°	← 360°

Draw an accurate pie chart to show the information in the table.

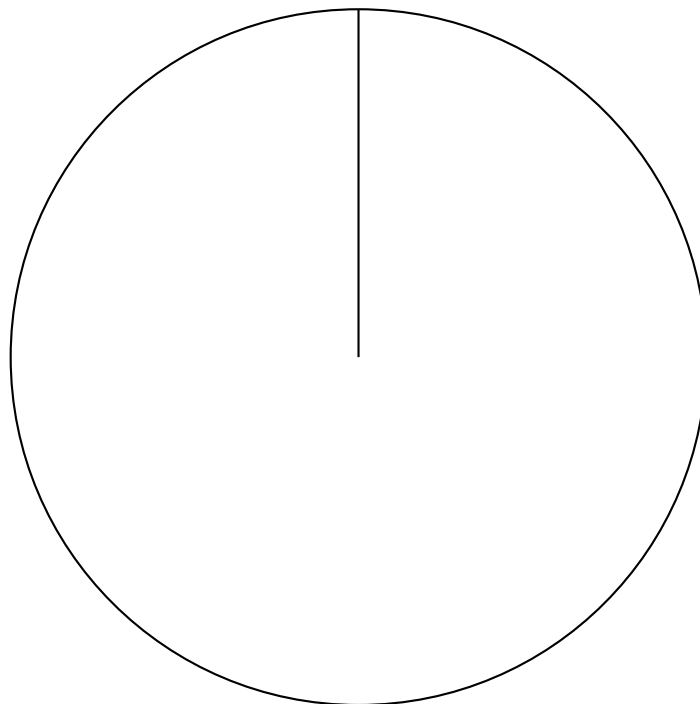
(i) Work out the scale factor. {Use the empty proportional triangle if it helps you.}



(ii) Calculate the angles.

(iii) Calculate the bearings and draw the sectors. {Bearings help with accuracy}

(iv) Label the sectors.



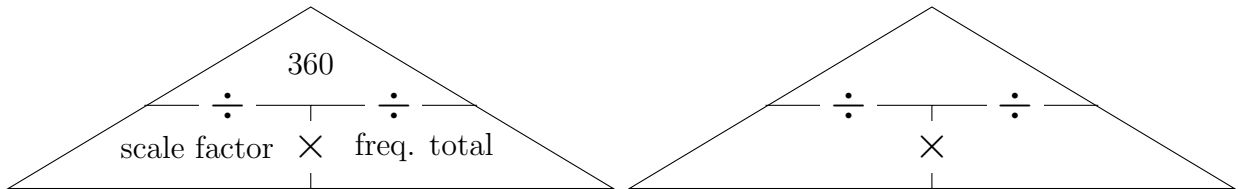
3. A teacher asked 40 students to choose a more healthy snack.

Here are his results.

snack	frequency	angle	bearing
apple	13		← 000°
banana	19		←°
toast	8		←°
total →		× → 360°	← 360°

Draw an accurate pie chart to show his results.

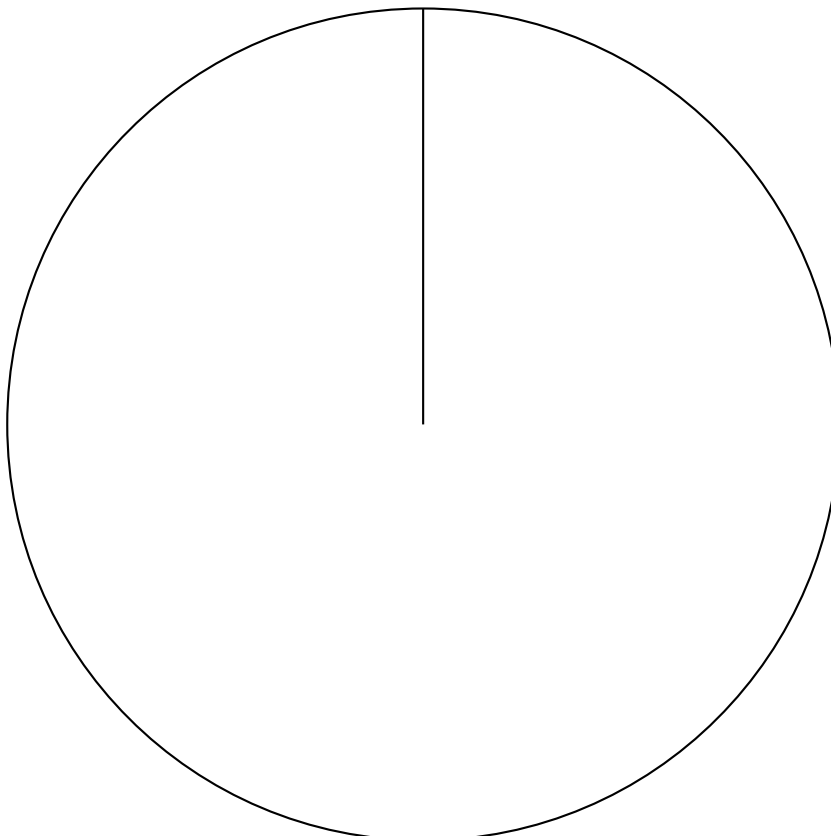
(i) Work out the scale factor. {Use the empty proportional triangle if it helps you.}



(ii) Calculate the angles.

(iii) Calculate the bearings and draw the sectors. {Bearings help with accuracy}

(iv) Label the sectors.



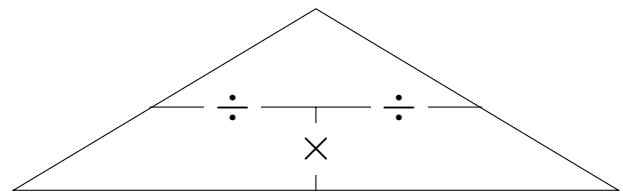
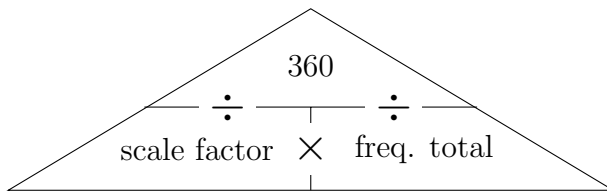
4. A researcher asked some students to name their favourite lesson.

Here are his classifications of their choices.

thing	frequency	angle	bearing
Creative Arts	73		← 000°
Sport	15		←°
STEM	7		←°
Written word	25		←°
total →		× → 360°	← 360°

Draw an accurate pie chart to show his results.

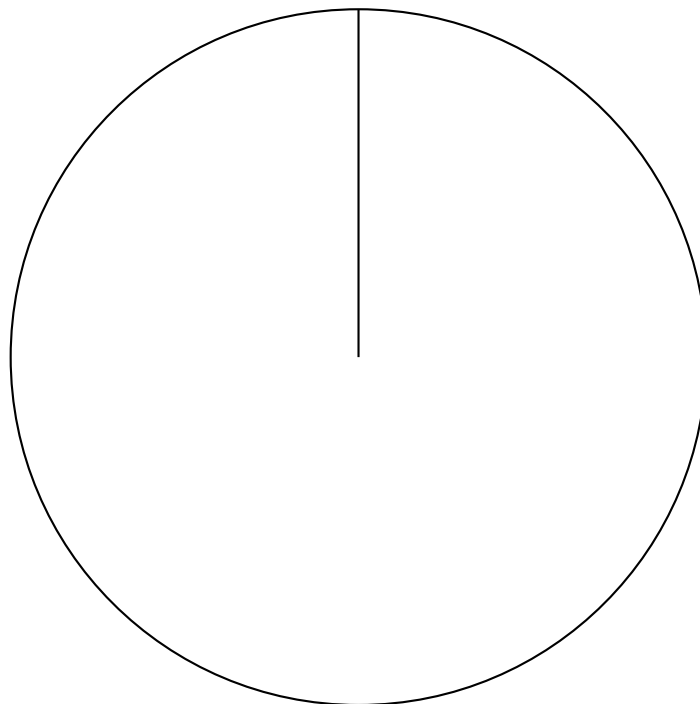
(i) Work out the scale factor. {Use the empty proportional triangle if it helps you.}



(ii) Calculate the angles.

(iii) Calculate the bearings and draw the sectors. {Bearings help with accuracy}

(iv) Label the sectors.



Answers

1. Pets at a vet

(i) 18
(ii) angles: 126, 162, 72
(iii) bearings: 126, 288

FYI: (i) B1, (ii) B1 (iii) sectors $\pm 2^\circ$ and (iv) labels (B1)

2. Climate change

(i) 5
(ii) angles: 55, 140, 135, 30
(iii) bearings: 055, 195, 330

FYI: (i) B1, (ii) B1 (iii) sectors $\pm 2^\circ$ and (iv) labels (B1)

3. Snack

(i) 9
(ii) angles: 117, 171, 72
(iii) bearings: 117, 288

FYI: (i) B1, (ii) B1 (iii) sectors $\pm 2^\circ$ and (iv) labels (B1)

4. Lesson type

(i) 3
(ii) angles: 219, 45, 21, 75
(iii) bearings: 219, 264, 285

FYI: (i) B1, (ii) B1 (iii) sectors $\pm 2^\circ$ and (iv) labels (B1)