Pie charts: fact sheet

Planner week 16 · Learn these facts

Full circle

360°

The whole pie is everyone

Degrees each

360 ÷ total

360 ÷ 90 = 4° each

Work out one person's angle

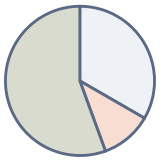
Each angle

frequency × degrees each

30 × 4 = 120°

Check: angles add to 360°

Drawing



120°
40°
200°

Start from the line drawn

Protractor on the centre

Reading

angle ÷ 360 × total

90 ÷ 360 × 760 = 190

Fraction of the pie × total

Finding the total

7 students = 105°

1 student = 105 ÷ 7 = 15°

360 ÷ 15 = 24 students

Find the angle for one person

Then divide 360 by it

Comparing

bigger angle ≠

more people

Unless the totals are the same

Work out the numbers

Labels

Label	every sector
Accuracy	± 2°
Total	360°

Key words

- **Pie chart** a circle split into sectors
- **Sector** one slice of the pie
- **Frequency** how many
- **Modal** the biggest sector

Exam tips

- Add up the total first.
- 360 ÷ total gives the degrees for one.
- Check your angles add to 360°.
- Measure from the line already drawn.
- Label every sector.
- Two pie charts: compare numbers, not angles.

Pie charts: fact sheet

Pie charts · Planner week 16 · Learn the method

Worked example

QUESTION

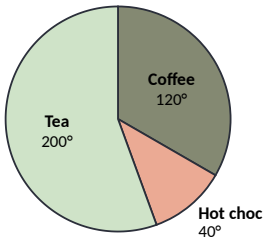
90 people were asked to choose their favourite hot drink. The table shows the results.

Draw an accurate pie chart to show this information.

Drink	Frequency
Coffee	30
Hot chocolate	10
Tea	50

ANSWER

1. Total = 30 + 10 + 50 = 90 people
2. 360° ÷ 90 = 4° for each person
3. Coffee 30 × 4 = 120°, Hot chocolate 10 × 4 = 40°, Tea 50 × 4 = 200°
4. Check: 120 + 40 + 200 = 360° ✓, then draw each angle



Degrees for one, then multiply each frequency.

How to do it

1. Add up the frequencies.
2. Work out 360 ÷ total.
3. Multiply each frequency by that number.
4. Check the angles add up to 360°.
5. Draw each angle with a protractor and label it.

Model answer:

120°, 40°, 200°

Watch out

- Using the frequency as the angle.
- Not labelling sectors.
- Comparing angles in pie charts with different totals.