

Drawing a pie chart

Use it when you know the angle for each sector.

1

Draw a line straight up from the centre.

2

Put the centre of the protractor on the centre of the circle, with 0 on the last line you drew.

3

Count up from 0 to the angle. Mark it and draw the line. Then put 0 on this new line for the next angle.

4

The last sector is a check: measure it.

The Maths Habit

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The Maths Habit

Working out the angles

Use it when you have a frequency table to draw as a pie chart.

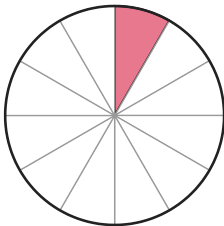
a) Add the frequencies to find the total.

Category	Frequency
...	
...	
...	
Total	total

add up the frequency column

b) $360^\circ \div \text{total} = \text{the degrees for each one.}$

degrees each



$360^\circ \div \text{total} = \text{degrees each}$
each one gets an equal slice

c) Angle = frequency $\times$ the degrees for each one.
Check they add up to 360° .

Category	Frequency	Angle
...		
...		
...		
Total		$360^\circ \checkmark$

frequency $\times$ degrees each, on every row
the angles add up to 360°

The Maths Habit

Working out the angles

Use it when you have a frequency table to draw as a pie chart.

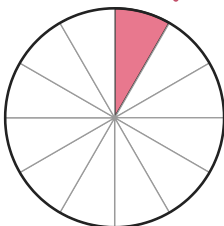
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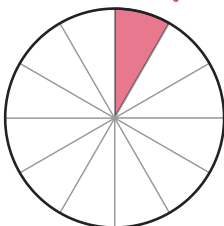
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...		
...		
Total		$360^\circ \checkmark$

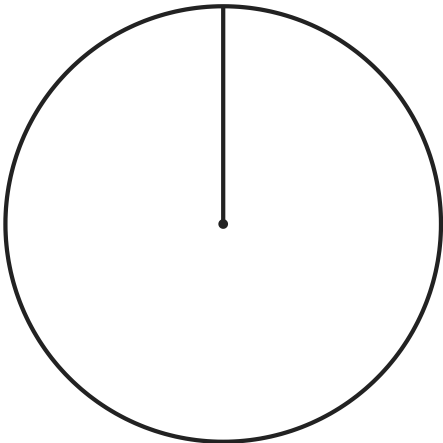
frequency $\times$ degrees each, on every row
the angles add up to 360°

The Maths Habit

Drawing Pie Charts *handout*

My Turn

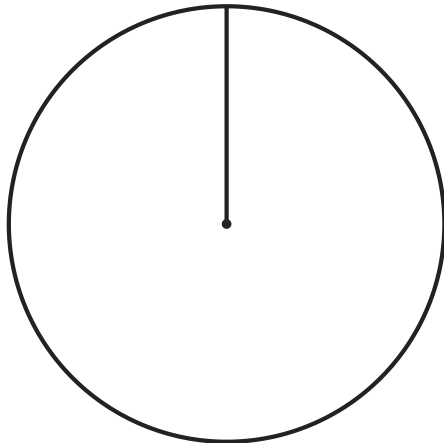
The crisps 36 students chose.



	Angle
Plain	100°
Cheese	140°
Salt	80°
Prawn	40°
Total	360°

Our Turn

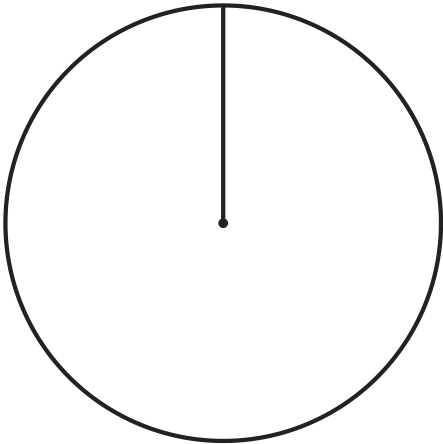
Some students name their pet.



	Angle
Dog	135°
Cat	105°
Fish	70°
Rabbit	50°
Total	360°

Your Turn

What students eat for breakfast.

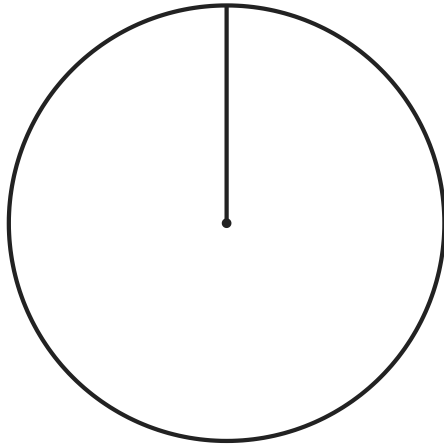


	Angle
Cereal	160°
Toast	95°
Fruit	60°
None	45°
Total	360°

My Turn

20 people choose an ice cream.

- a) Total frequency: _____
- b) Degrees each: $360^\circ \div \text{total} =$ _____
- c) Complete the angle column.
The angles add up to 360°.
- d) Draw the pie chart.



	Frequency	Angle
Vanilla	7	
Chocolate	8	
Mint	3	
Lemon	2	
Total		360°

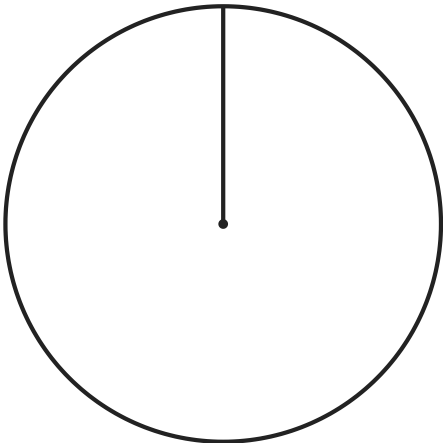
Drawing Pie Charts *handout*

Our Turn

72 people choose a drink.

- a) Total frequency: 72
- b) Degrees each: $360^\circ \div 72 =$ _____
- c) Complete the angle column.
The angles add up to 360° .
- d) Draw the pie chart.

	Frequency	Angle
Tea	20	
Coffee	26	
Juice	15	
Water	11	
Total	72	360°

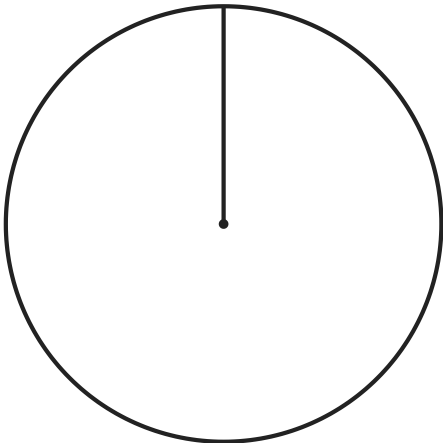


Your Turn

90 cars in a car park.

- a) Total frequency: _____
- b) Degrees each: $360^\circ \div \text{total} =$ _____
- c) Complete the angle column.
The angles add up to 360° .
- d) Draw the pie chart.

	Frequency	Angle
Red	15	
Black	30	
White	25	
Other	20	
Total		360°



Your Turn

Cinema trips last month for 40 students.

- a) Total frequency: _____
- b) Degrees each: $360^\circ \div \text{total} =$ _____
- c) Complete the angle column.
The angles add up to 360° .
- d) Draw the pie chart.

	Frequency	Angle
0	6	
1	23	
2	7	
3+	4	
Total		360°

