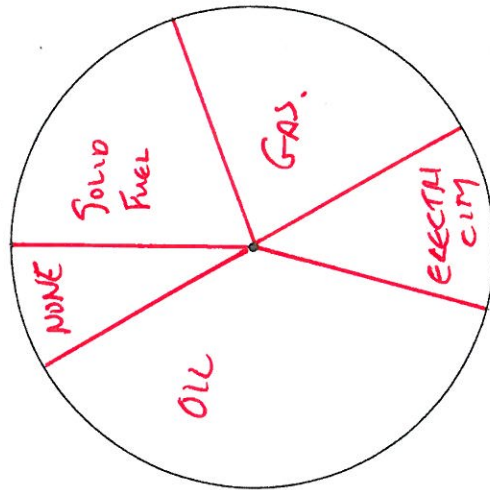


6. In a survey, the type of central heating used by 240 households was as shown in the table.

Type of central heating	Number of households
Solid fuel	46
Gas	54
Electricity	30
Oil	90
None	20

Draw a pie chart to illustrate these results. You should show how you calculate the angles of your pie chart.



240 people, 360° between them

So each person gets $360 \div 240 = 1.5^\circ$

Solid Fuel = $46 \times 1.5 = 69^\circ$

Gas = $54 \times 1.5 = 81^\circ$

Electricity = $30 \times 1.5 = 45^\circ$

Oil = $90 \times 1.5 = 135^\circ$

None = $20 \times 1.5 = 30^\circ$

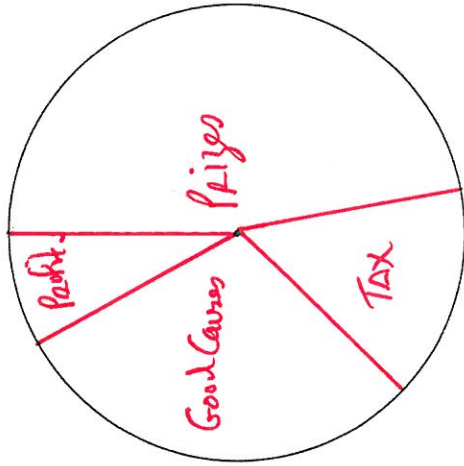
[4]

Turn over.

7. The table shows the way in which £120, collected in a lottery, was distributed.

Category	Amount (£)
Prizes	56
Tax	18
Good causes	36
Profit	10

Draw a pie chart to illustrate this data. You should show how you calculate the angles of your pie chart.



£120 in total, 360° shared
So each £ gets $360 \div 120 = 3^\circ$

Prizes = $56 \times 3 = 168^\circ$

Tax = $18 \times 3 = 54^\circ$

Good Causes = $36 \times 3 = 108^\circ$

Profit = $10 \times 3 = 30^\circ$

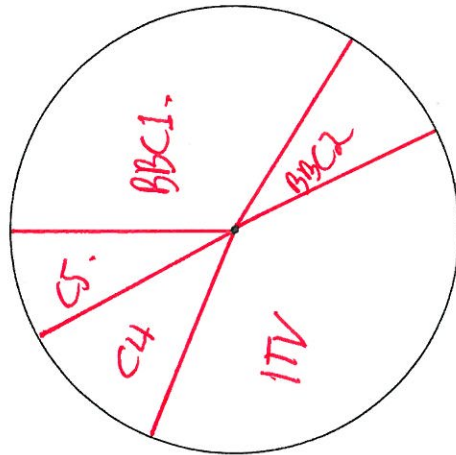
[4]

4. Some people were asked which of the various television channels they were watching at 8.15 p.m. on a certain day of the week. The results were as shown in the table.

Channel	Frequency
BBC1	30
BBC2	8
ITV	35
Channel 4	10
Channel 5	7

$7 + 10 + 35 + 8 + 30 = 90$

Draw a pie chart to illustrate this data. You should show how you calculate the angles of your pie chart.



90% 90 people share 360°
So $360 \div 90 = 4^\circ$ each

$BBC1 = 30 \times 4 = 120^\circ$
 $BBC2 = 8 \times 4 = 32^\circ$
 $ITV = 35 \times 4 = 140^\circ$
 $C4 = 10 \times 4 = 40^\circ$
 $C5 = 7 \times 4 = 28^\circ$

[4]

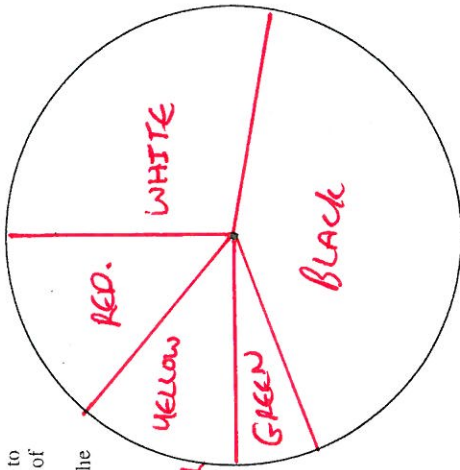
Colour	White	Black	Green	Yellow	Red
Frequency	10	15	2	4	5

$10 + 15 + 2 + 4 + 5 = 36$

- (a) In the circle opposite, draw a pie chart to show the distribution of the colours of the cars.

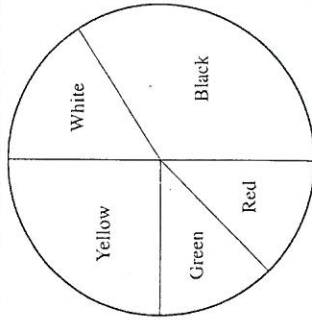
You must show how you calculate the angles of your pie chart.

36 cars share 360°
 So each car $360 \div 36 = 10^\circ$ each
 White = $10 \times 10 = 100^\circ$
 Black = $15 \times 10 = 150^\circ$
 Green = $2 \times 10 = 20^\circ$
 Yellow = $4 \times 10 = 40^\circ$
 Red = $5 \times 10 = 50^\circ$



- (b) The pie chart below shows the distribution of the colours of the cars in a car park in Swansea. [3]

Why is it not possible to say whether there were more white cars in the car park in Cardiff than there were in the car park in Swansea?



because we don't know how many cars there were in the Swansea car park - if there was a different number to Cardiff, then we can't compare.

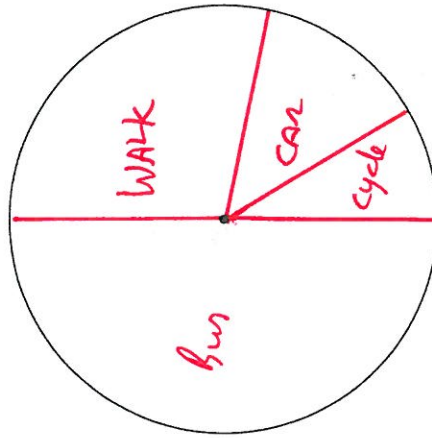
Turn over. [1]

5. Year 11 pupils at a certain school were asked to state by what means they usually came to school. Each pupil could only give one answer. The table gives the responses of the pupils.

Main means of coming to school	Number of pupils
Walk	34
Car	16
Cycle	10
Bus	60

$= 120$

Draw a pie chart to illustrate this data. You should show how you calculate the angles of your pie chart.



120 pupils share 360°
 So $360 \div 120 = 3^\circ$ each

Walk = $34 \times 3 = 102^\circ$
 Car = $16 \times 3 = 48^\circ$
 Cycle = $10 \times 3 = 30^\circ$
 Bus = $60 \times 3 = 180^\circ$

[4]

6. Eighty pupils were asked what they drank with their breakfast. Of these pupils, 36 drank tea, 18 drank coffee, 16 drank milk and 10 drank other drinks.

(a) What is the probability that a randomly chosen pupil

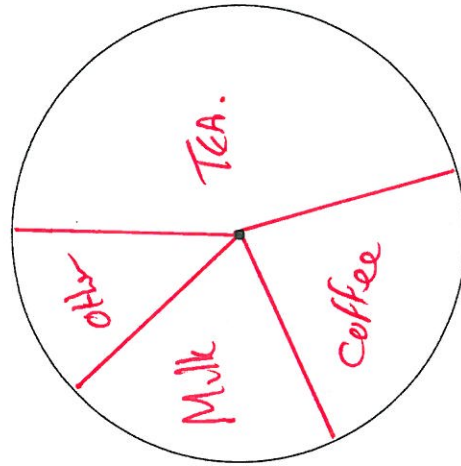
(i) drank coffee at breakfast,

$\frac{18}{80}$

(ii) did not drink tea at breakfast?

$80 - 36 = 44$ didn't drink tea - probability $\frac{44}{80}$

(b) Draw a pie chart to illustrate the different drinks that the pupils had with their breakfast. You should show how you calculate the angles of your pie chart.



80 pupils share 360°
 So $360 \div 80 = 4.5^\circ$

Tea = $36 \times 4.5 = 162^\circ$
 Coffee = $18 \times 4.5 = 81^\circ$
 Milk = $16 \times 4.5 = 72^\circ$
 Other = $10 \times 4.5 = 45^\circ$

[4]