



Aberdare Community School
Mathematics Department

WJEC GCSE
Higher – Calculator
Data

Pie charts

Name:

Set:

Date:

Teacher:

2. The number of seats won by the political parties in the May 2010 general election is shown in the table below.

Political Party	Number of seats
Conservative	306
Labour	258
Liberal Democrats	57
Others	29

Draw a pie chart, as accurately as possible, to show this information.
Show how you calculate the angles of your pie chart.

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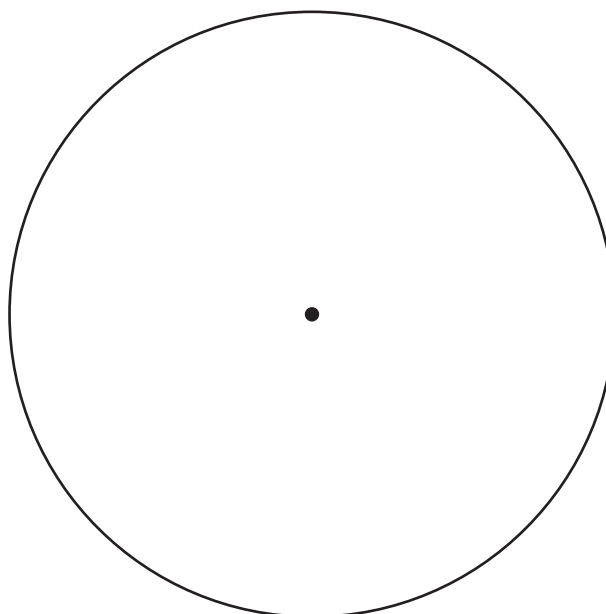
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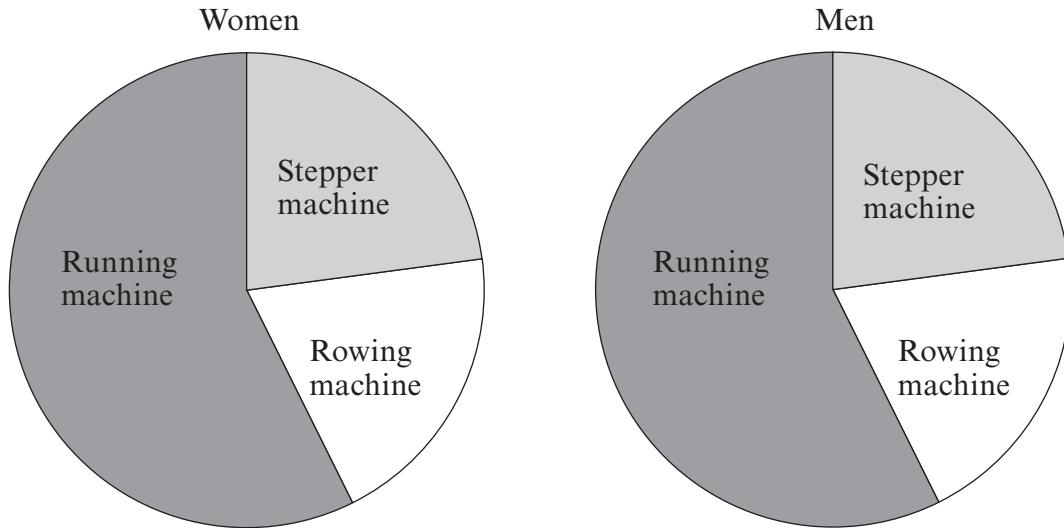
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- (b) The same men and women were asked, whilst at the gym, how much time they spent on each of three fitness machines, the rowing machine, the stepper machine and the running machine.
The gym instructor produced the following pie charts to display the results of this survey.



Tomas states,

“Men and women at the gym spend the same time on each of the three machines as each other”.

Give a reason why Tomas may be wrong.

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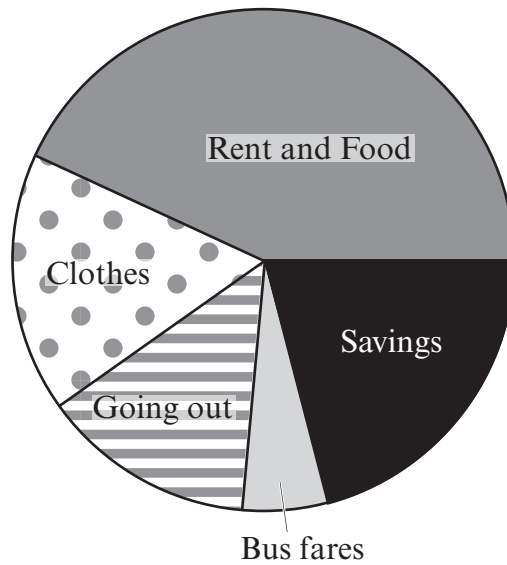
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[1]

4. The pie chart shows what Maria plans to do with her first month's salary of £1620.



- (a) Calculate the amount Maria plans to spend on clothes from her first month's salary.

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- (b) How much more does Maria plan to spend, in the first month, on clothes than on bus fares?

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- (c) Mark finds a job with a lower first month's salary than Maria's first month's salary. He draws a pie chart that shows what he plans to do with his first month's salary.

The angle for 'going out' on Mark's pie chart is the same as the angle for 'going out' on Maria's pie chart.

Looking at Mark's pie chart, Maria states

“We will both have the same amount of money to spend on going out.”

Explain, with reasons, whether Maria is correct or not.

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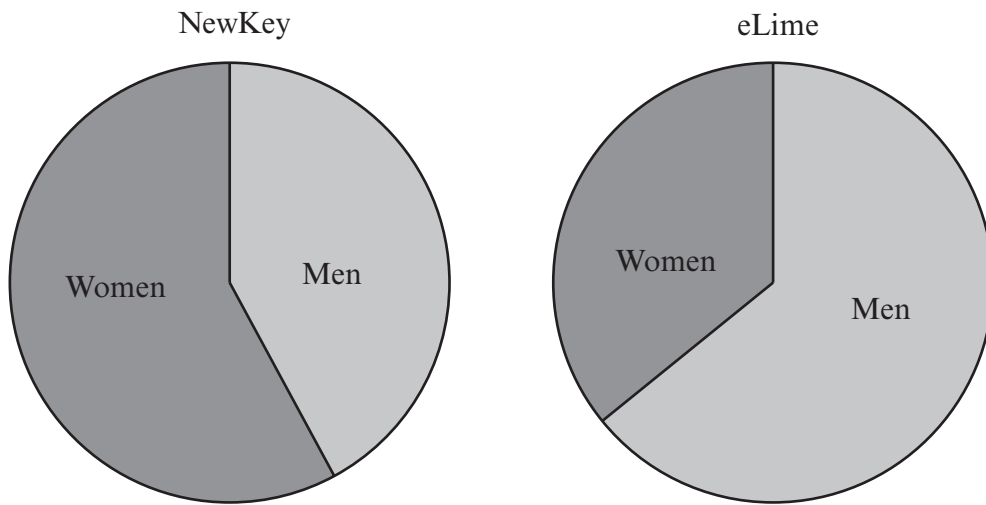
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[2]

(c) Tanya has been given two pie charts, by the supermarket manager, comparing the sales of the two makes of phones.



The supermarket manager says,

“More men buy NewKey phones than eLime phones”.

Explain how this could be true.

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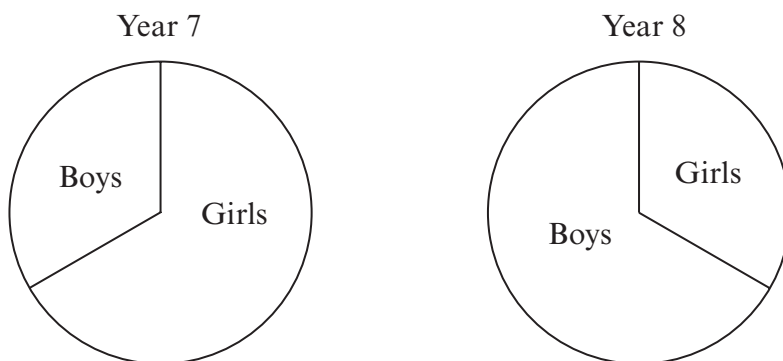
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[1]

3. The pie charts below represent the number of boys and the number of girls in two year groups.



There are 150 pupils in Year 7.

There are 40 more boys in Year 8 than there are boys in Year 7.

How many girls, in total, are there in Year 7 and Year 8?

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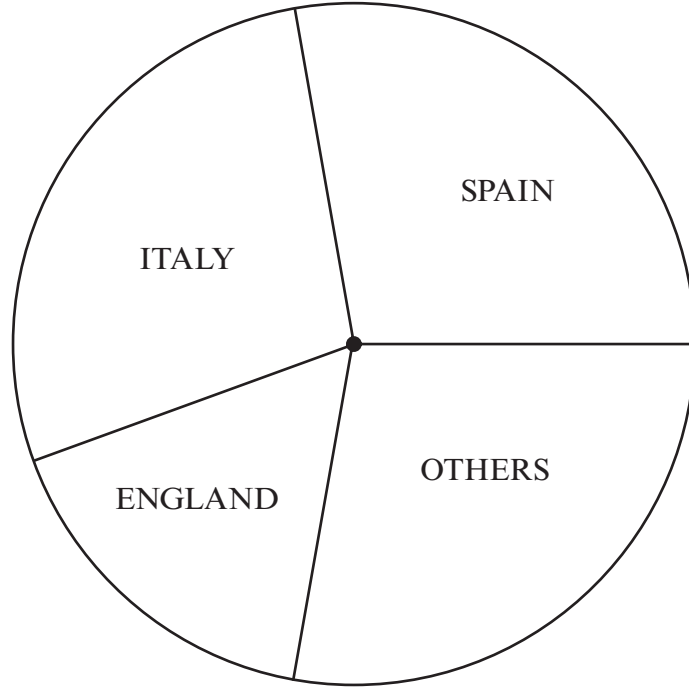
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4. A sports magazine used the following pie chart to illustrate the countries from which the first 18 European Championship League winners came.



How many times did a team from Spain win the Championship?

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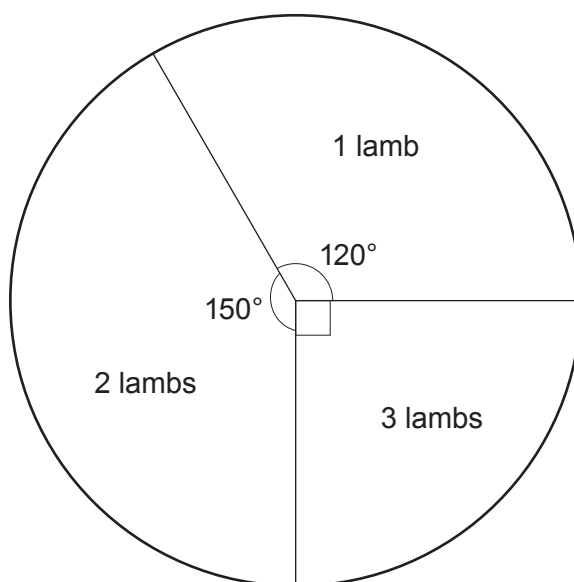
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[3]



8. Twenty four sheep each gave birth to one, two or three lambs. The proportions of sheep that gave birth to one, two or three lambs are shown in the pie chart below.



Calculate the mean number of lambs born per sheep.
Give your answer correct to 1 decimal place.

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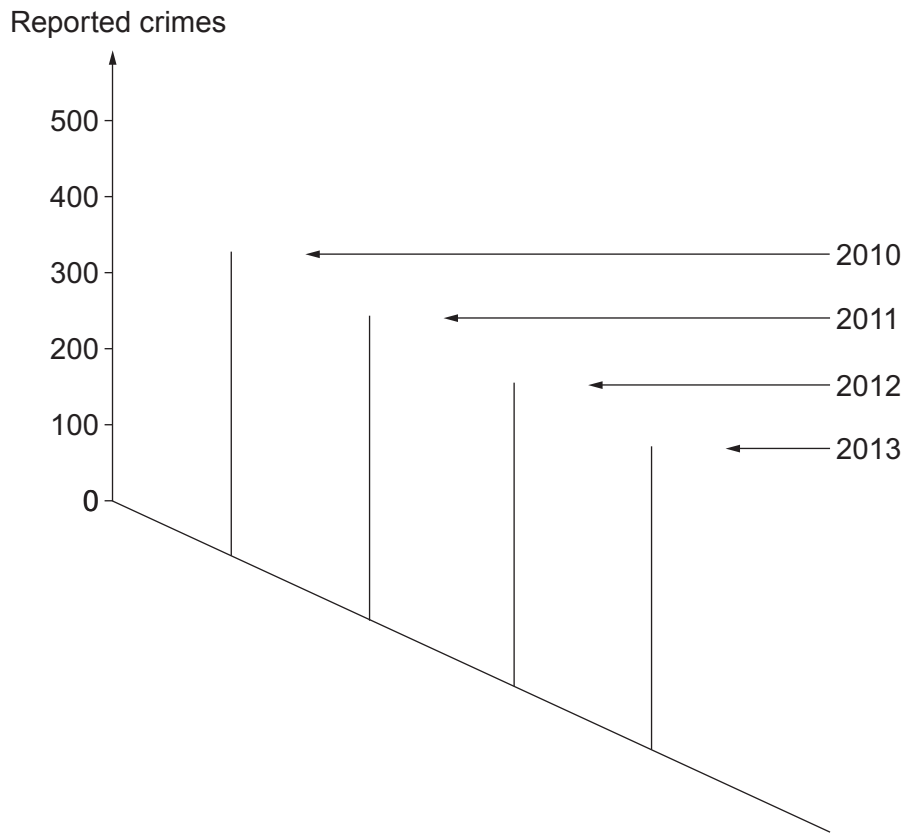
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(b) A newspaper published the following graph.



Comment on how this graph could be misunderstood and give the reason for this. [2]

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