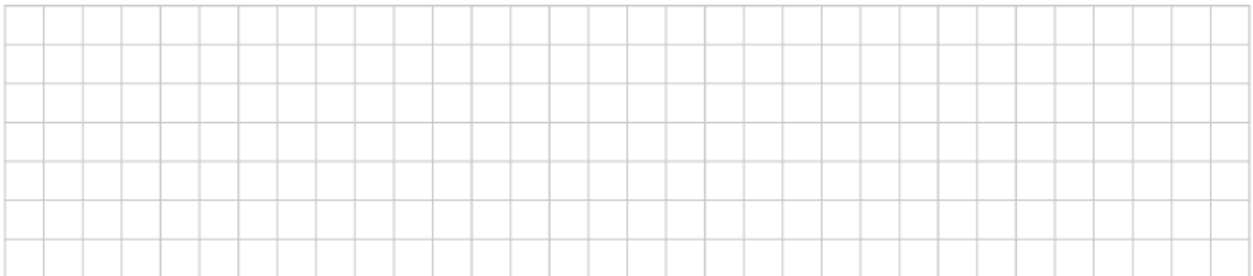


(v) Display John's data in a pie chart. Show all of your calculations clearly.

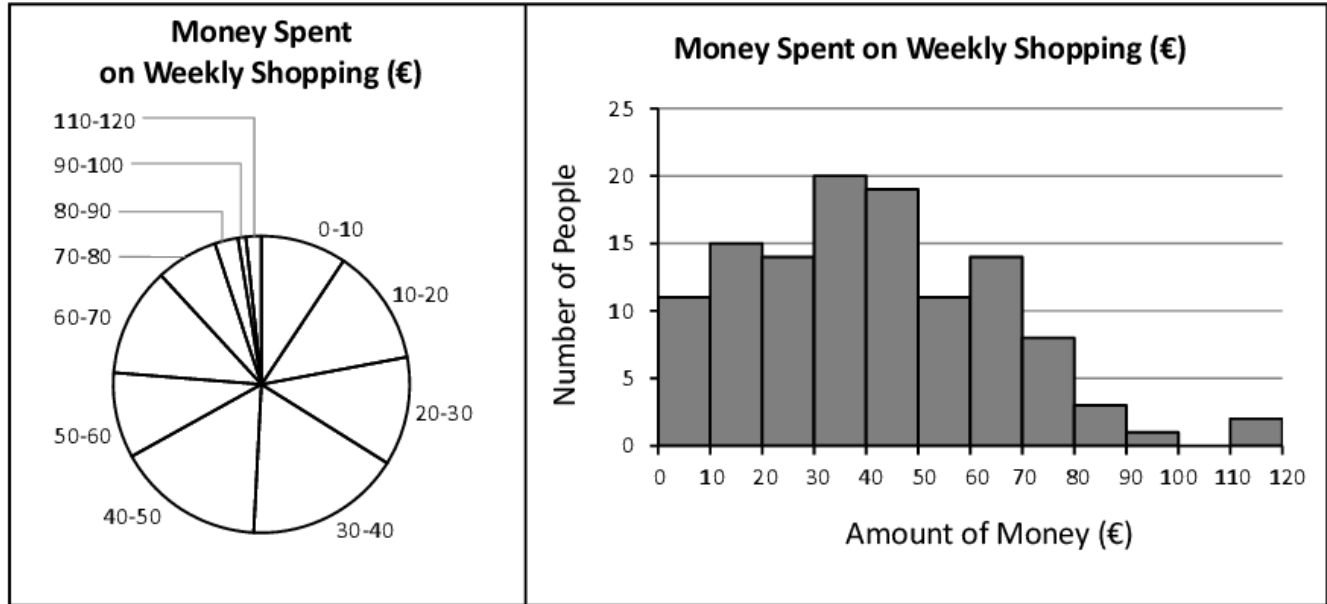


(b) Margaret wants to examine if people prefer to do their weekly shopping in *Tesco*, *Dunnes Stores*, *SuperValu*, or *Lidl*. She stands outside her local *Lidl* shop for one day, and asks everyone as they leave the shop where they prefer to do their weekly shopping.

Give one reason why Margaret's data may be biased.



- (c) Mary is interested in the amount of money people spend on their weekly shopping. She surveys people as they leave the local supermarket on a Saturday morning, and displays her results in the two graphs below.



- (i) Mary wants to show that about half of her sample spent less than €40 on their weekly shopping. Which graph do you think she should use? Give a reason for your answer.

Answer: _____

Reason: _____

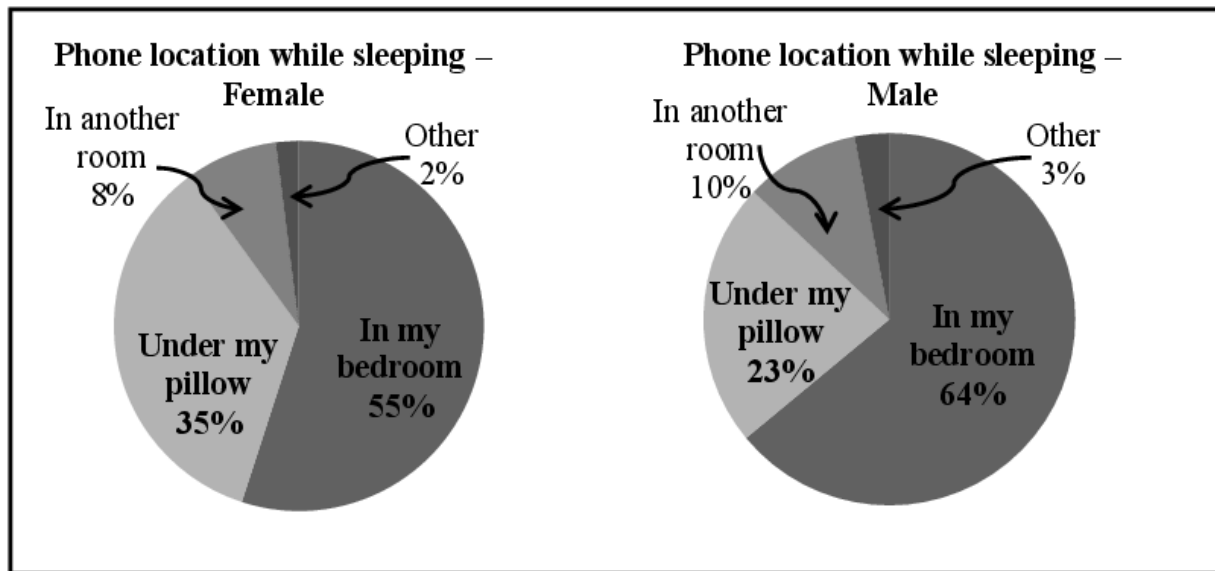
- (ii) Mary wants to show that there were more people in the 30–40 group than in any other. Which graph do you think she should use? Give a reason for your answer.

Answer: _____

Reason: _____

Question 5

In total 7150 second level school students from 216 schools completed the 2011/2012 phase 11 *CensusAtSchool* questionnaire. The questionnaire contained a question relating to where students keep their mobile phones while sleeping.



- (a) Given that this question was answered by 4171 girls and 2979 boys, calculate how many female students kept their mobile phones under their pillows.

- (b) Calculate the overall percentage of students who kept their mobile phones under their pillows.

- (c) A new pie chart is to be drawn showing the mobile phone location for all students. Calculate the measure of the angle that would represent the students who kept their mobile phones under their pillows.

