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| **Statistics and Probability Revision**  | **3** |
| **(a)** | **(b)** |
| The frequency table shows the number of different sizes of shoes sold across a week. | Chloe asked a number of students to choose their favourite fruit. The pie chart (not drawn to scale) shows this information.  |
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| Shoe Size | Frequency |
| 4 | 3 |
| 5 | 11 |
| 6 | 8 |
| 7 | 5 |
| 8 | 9 |
| 9 | 4 |

 | (i) Write down the modal shoe size.(ii) Work out the total number of pairs of shoes sold.(iii) Calculate the mean shoe size. |  | (i) 18 students chose orange as their favourite fruit. How many students chose banana?(ii) 27 students chose grapes. Work out the size of the pie chart angle for grapes. |
| **(c)** | **(d)** |
| The heights of 50 plants are measured and recorded in a grouped frequency table. | 40 children were asked whether they have a brother(B) or sister(S). Of the 40 children, 11 have both a brother and a sister, 8 have **only** a sister, and 15 have neither a brother or a sister. |
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| Height $h$ (cm) | Frequency |
| $$20\leq h<30$$ | $$11$$ |
| $$30\leq h<40$$ | $$8$$ |
| $$40\leq h<50$$ | $$23$$ |
| $$50\leq h<60$$ | $$5$$ |
| $$60\leq h<70$$ | $$3$$ |

(i) Write down the modal class.(ii) Calculate an estimate for the mean height. |
| (i) Complete the Venn diagram. | (ii) A child is chosen at random. Find the probability that the child chosen has a brother.(iii) Find $P(S^{'})$ |