(a)

The frequency table shows the number of different sizes of shoes sold across a week.

Shoe Size	Frequency
4	3
5	11
6	8
7	5
8	9
9	4

(i) Write down the modal shoe size.
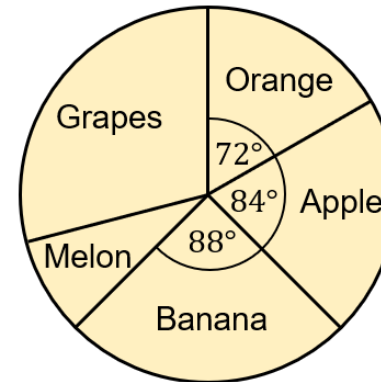
5

(ii) Work out the total number of pairs of shoes sold.

40

(iii) Calculate the mean shoe size.

6.45

(b)

Chloe asked a number of students to choose their favourite fruit. The pie chart (not drawn to scale) shows this information.

(i) 18 students chose orange as their favourite fruit. How many students chose banana?

22

(ii) 27 students chose grapes. Work out the size of the pie chart angle for grapes.

108°

(c)

The heights of 50 plants are measured and recorded in a grouped frequency table.

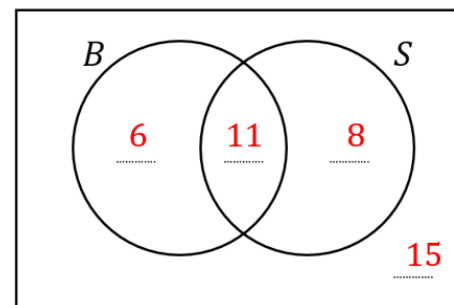| Height h (cm)	Frequency
$20 \leq h < 30$	11
$30 \leq h < 40$	8
$40 \leq h < 50$	23
$50 \leq h < 60$	5
$60 \leq h < 70$	3

(i) Write down the modal class. $40 \leq h < 50$

(ii) Calculate an estimate for the mean height. $41.2 \, cm$

(d)

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.

(i) Complete the Venn diagram.

(ii) A child is chosen at random. Find the probability that the child chosen has a brother.

$\dfrac{17}{40}$

(iii) Find $P(S')$

$\dfrac{21}{40}$