1. Nov/2021/Paper_12/No.13

The mean of five numbers is 17.

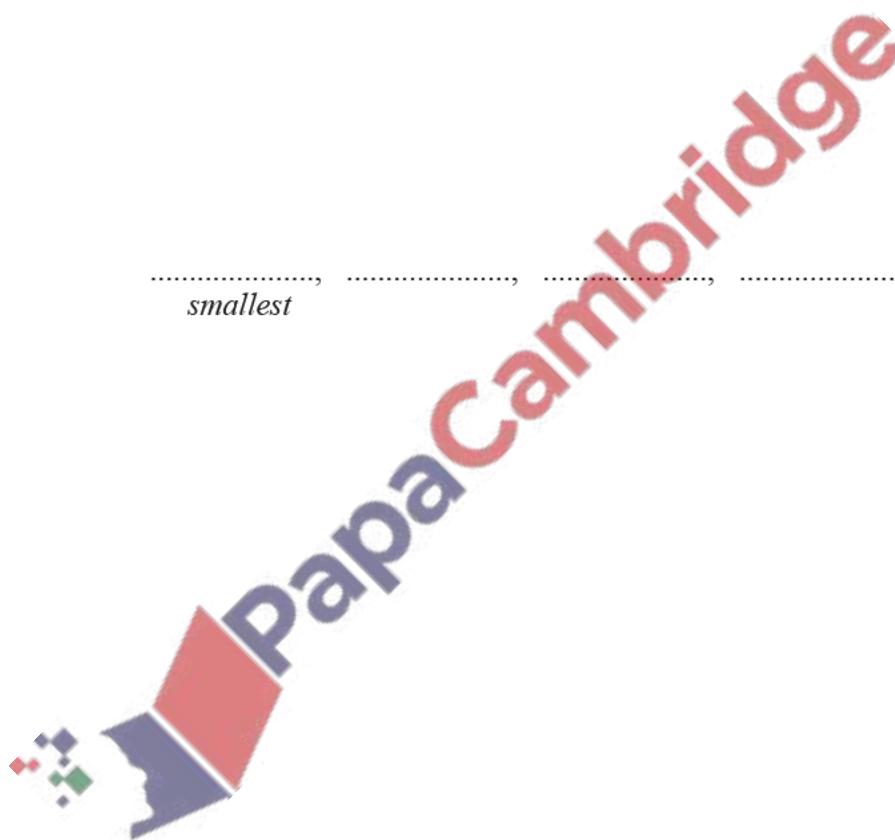The numbers are listed in order of size, starting with the smallest.
The three smallest numbers are equal.
The middle three numbers add to 35.
The largest number is four times the smallest number.

List the five numbers in order of size.

...................., ..., ..., ..., ... [3]
smallest

2.

(a) The table shows the number of exercise classes attended in one week by each of 80 members of a gym.

Number of classes	0	1	2	3	4	5
Frequency	10	29	26	10	3	2

(i) Find the mode.

.... [1]
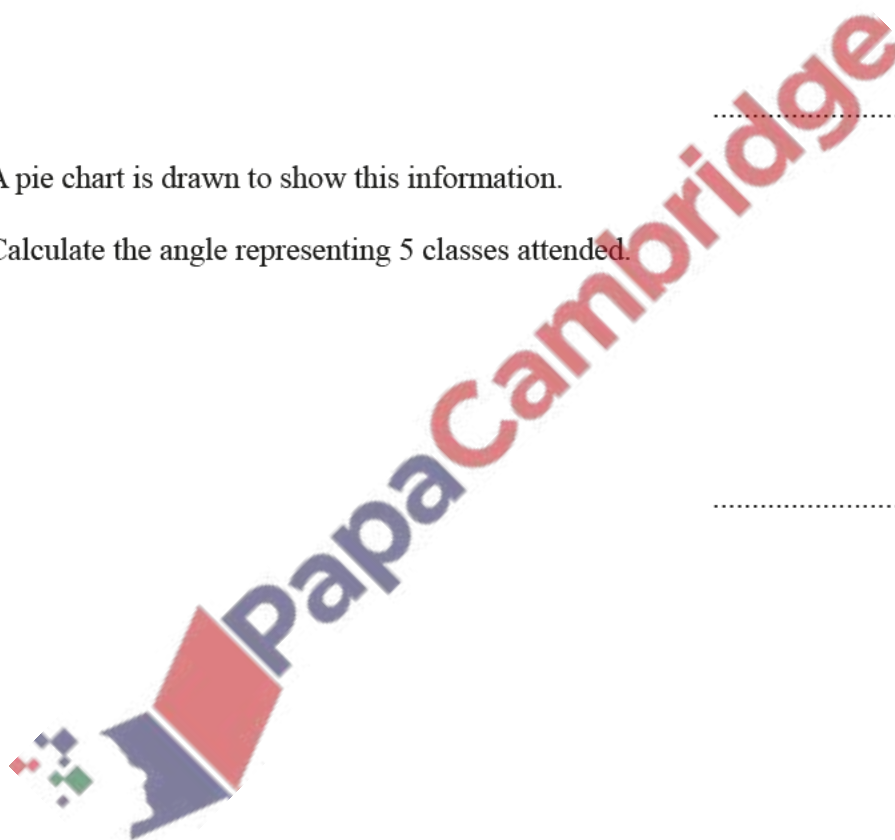
(ii) Find the median.

.... [1]
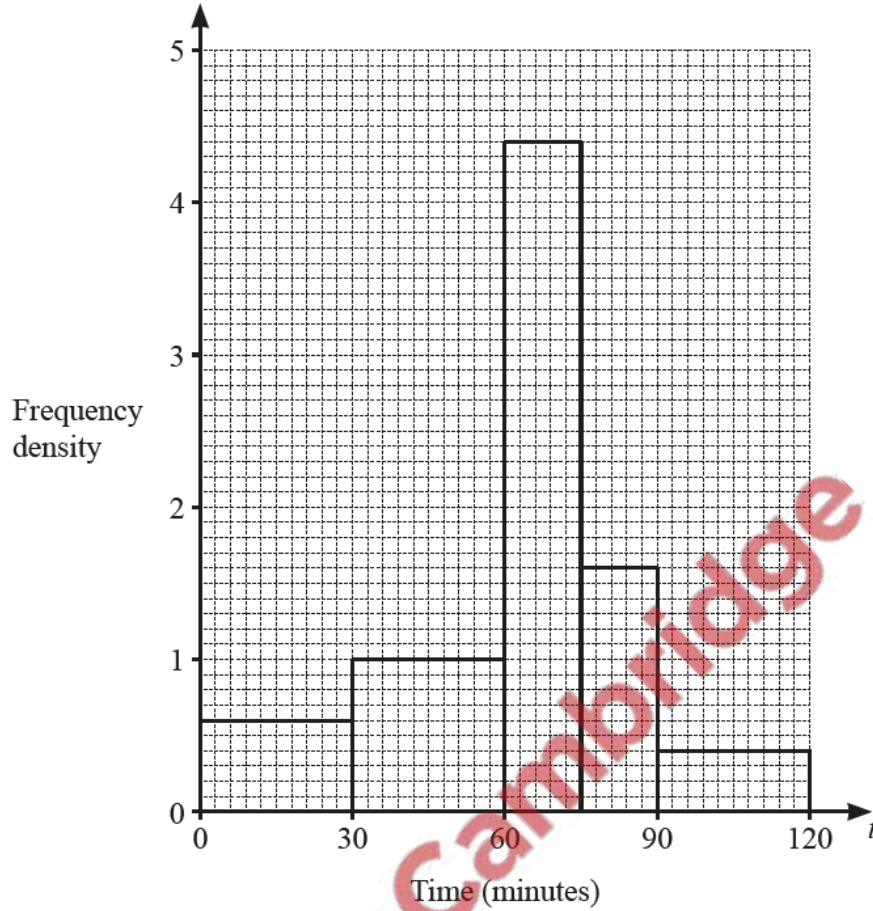
(iii) A pie chart is drawn to show this information.

Calculate the angle representing 5 classes attended.

.... [2]

(b) Some members of the gym were surveyed about how much time they spent at the gym.
The histogram shows the times, t minutes, they spent on their last visit.

(i) Thirty members spent between 30 and 60 minutes at the gym.

Calculate the number of members surveyed.

.... [3]

(ii) Rohit says:

One tenth of these members spent longer than $1\frac{1}{2}$ hours at the gym on their last visit.

Is he correct?
Justify your answer.

....

.... [2]

100 adults in a town were surveyed about the number of emails they each received one day.
The table shows the results.

Number of emails	1	2	3	4	5	6	7	8
Number of adults	8	10	22	28	15	9	5	3

(a) Find the mode.

.... [1]

(b) Calculate the mean.

.... [2]

(c) One of these adults is chosen at random.

Find the probability that they received **fewer than** 4 emails that day.
Give your answer as a fraction in its simplest form.

.... [2]

(d) The town has 18 000 adults.

Use the survey results to estimate the number of adults in the town who received exactly 5 emails that day.

.... [2]