D1 Data exam review

1 There are 15 students in class *A*.

In a test, the student gained these marks.

2 1 2 5 5 6 9 2 5 6 7 5 6 5 6

a Find the interquartile range of these marks.

.....

(3)

The students in class *B* took the same test.
Their marks had a median of 7 and an interquartile range of 2

b Make **two** comparisons between the marks of the two classes.

i .....

.....

ii .....

.....

(2)

(Total 5 marks)

2 The table gives information about the heights of some plants.

Height, h cm	Frequency
$0 < h \leqslant 5$	4
$5 < h \leqslant 10$	6
$10 < h \leqslant 15$	8
$15 < h \leqslant 20$	2

Calculate an estimate of the mean height.

..... cm

(Total 4 marks)

3 The table shows information about the ages of 24 students.

Age (years)	Number of students
16	9
17	3
18	8
19	4

a i Write down the mode of these ages.

..... years

ii Find the median of these ages.

..... years

iii Calculate the mean of these ages.

..... years

(6)

Another student, aged 18, joins the group.

b i Without calculating the new mean, state whether the mean will increase or decrease or stay the same.

.....

ii Give a reason for your answer to **i**.

.....

.....

.....

(2)

(Total 8 marks)

4 a Four numbers have a mean of 6
Three of the numbers are 3, 7 and 10
Find the other number.

.....

(2)

b Three numbers have a mode of 5 and a mean of 6 Find the three numbers.

.....

(2)

c Find four numbers which have a mode of 7 and a median of 6

.....

(2)

(Total 6 marks)

5 A youth club has 60 members.

40 of the members are boys.
20 of the members are girls.

The mean number of videos watched last week by all 60 members was 2.8
The mean number of videos watched last week by the 40 boys was 3.3

a Calculate the mean number of videos watched last week by the 20 girls.

.....

(3)

Ibrahim has two lists of numbers.
The mean of the numbers in the first list is p.
The mean of the numbers in the second list is q.

Ibrahim combines the two lists into one new list of numbers.

Ibrahim says 'The mean of the new list of numbers is equal to $\frac{p+q}{2}$.'

One of two conditions must be satisfied for Ibrahim to be correct.

b Write down each of these conditions.

Condition 1

. . . . . .

Condition 2

. . . . . .

(2)

(Total 5 marks)