

Descriptive Stats 1

- 1) The mean of the ten numbers listed below is 6.8.

$$8, 5, 5, 10, 8, 4, 9, 7, p, q$$

- (a) Write down an equation in terms of p and q . *[2 marks]*

The mode of these ten numbers is five and p is less than q .

- (b) Write down the value of

(i) p ;

(ii) q . *[2 marks]*

- (c) Find the median of the ten numbers. *[2 marks]*

- 2) The temperatures in °C, at midday in Geneva, were measured for eight days and the results are recorded below.

$$7, 4, 5, 4, 8, T, 14, 4$$

The mean temperature was found to be 7 °C.

- (a) Find the value of T . *[3 marks]*

- (b) Write down the mode. *[1 mark]*

- (c) Find the median. *[2 marks]*

- 3) The following table shows the number of errors per page in a 100 page document.

Number of errors	0	1	2	3	4
Number of pages	28	24	20	17	11

- (a) State whether the data is discrete, continuous or neither. *[1 mark]*

- (b) Find the mean number of errors per page. *[2 marks]*

- (c) Find the median number of errors per page. *[2 marks]*

- (d) Write down the mode. *[1 mark]*

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- 4) The grades obtained by a group of 20 IB students are listed below:

6 2 5 3 5 5 6 2 6 1
7 6 2 4 2 4 3 4 5 6

- (a) Complete the following table for the grades obtained by the students.

[2 marks]

Grade	Frequency
1	
2	
3	2
4	
5	4
6	
7	1

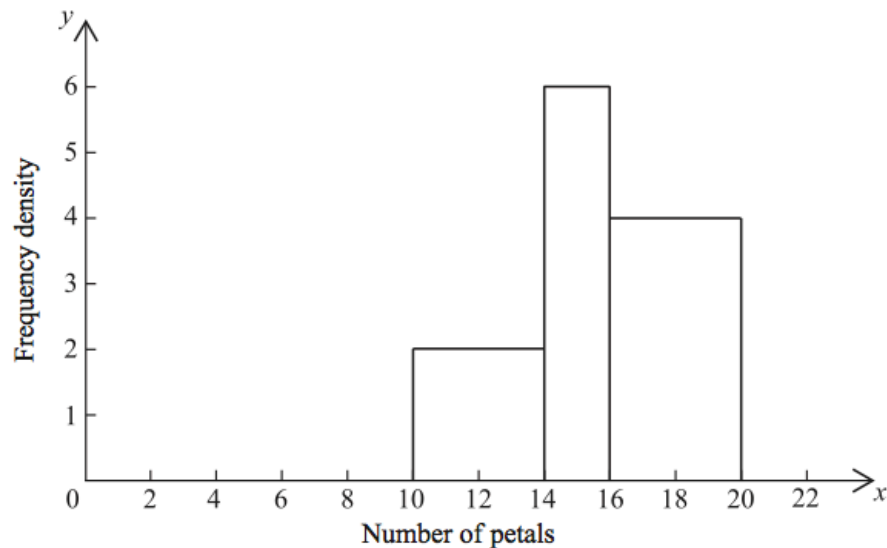
- (b) Write down the modal grade obtained by the students.

[1 mark]

- (c) Calculate the median grade obtained by the students.

[2 marks]

- 5) The diagram shows the frequency density histogram for the number of petals on roses.



The information is displayed in the frequency table below.

Number of petals (x).	Frequency
$10 < x \leq 14$	a
$14 < x \leq 16$	12
$16 < x \leq 20$	b

- (a) Find the values of a and b .
- (b) State the modal group.
- (c) Calculate an estimate of the mean number of petals.

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6) The numbers of games played in each set of a tennis tournament were

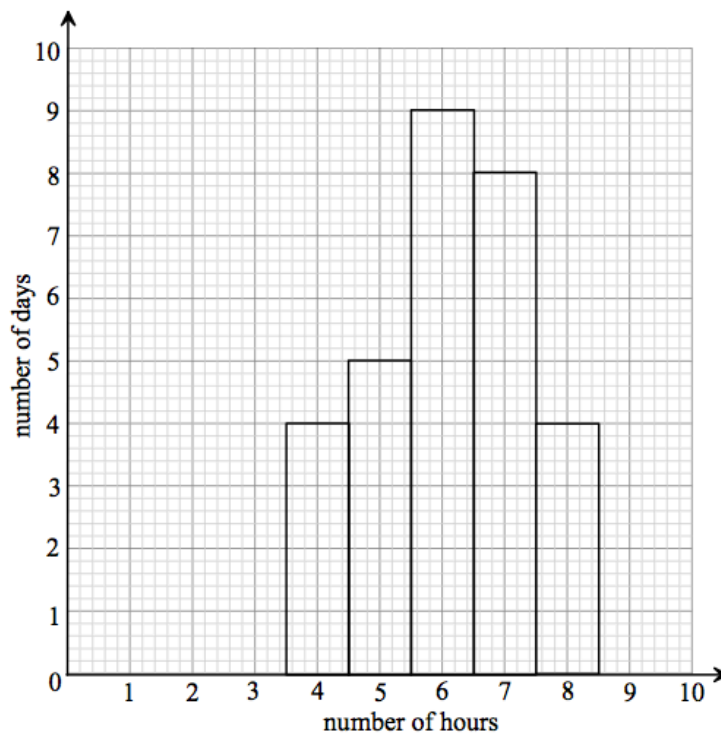
9, 7, 8, 11, 9, 6, 10, 8, 12, 6, 8, 13, 7, 9, 10, 9, 10, 11,
12, 8, 7, 13, 10, 7, 7.

The raw data has been organised in the frequency table below.

games	frequency
6	2
7	5
8	n
9	4
10	4
11	2
12	2
13	2

- Write down the value of n .
- Calculate the mean number of games played per set.
- What percentage of the sets had more than 10 games?
- What is the modal number of games?

7) The number of hours that a professional footballer trains each day in the month of June is represented in the following histogram.



- Write down the modal number of hours trained each day.
- Calculate the mean number of hours he trains each day.