



Stem and Leaf Diagrams



REVISE THIS TOPIC

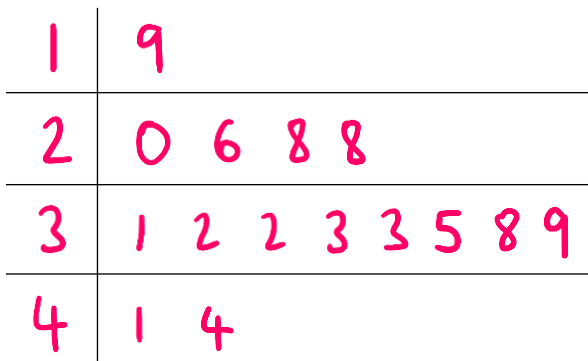


1 The number of goals scored by 15 teams during a football season are shown below.

26	33	32	32	19
41	31	28	28	20
35	39	38	44	33

(a) Show this information in a stem and leaf diagram.

(3)



Key
1 9 = 19

(b) Write down how many teams scored more than 30 goals.

10

(1)

(c) Work out the median number of goals scored by the 15 teams.

32

(2)

(Total for Question 1 is 7 marks)

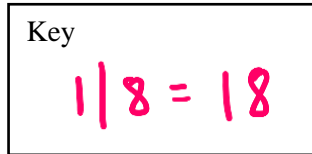
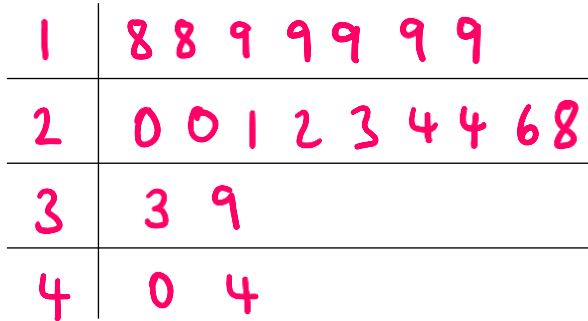


2 The ages of 20 people taking a driving test on a particular day are shown below.

22 40 33 18 26 28 19 23 19 19
39 19 24 18 24 20 19 21 20 44

(a) Show this information in a stem and leaf diagram.

(3)



(b) Write down the modal age of the drivers taking their test on this day.

..... 19

(1)

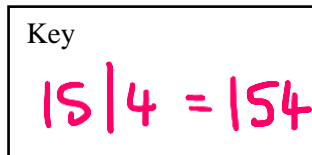
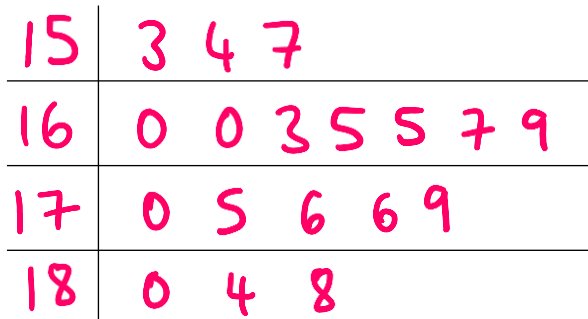
(Total for Question 2 is 4 marks)

3 The heights in centimetres of 18 students at an art club are shown below.

154 170 175 176 157 167
180 184 153 160 160 179
163 165 165 188 169 176

(a) Show this information in a stem and leaf diagram.

(3)



(b) Work out the range of the heights of the students from the art club.

188 - 153 35 cm

(2)

(Total for Question 3 is 5 marks)



4 Joff plays golf once per week. He records his total score for 16 weeks.

The stem and leaf diagram below shows Joff's scores for 16 weeks.

8	7	9	9	
9	8	4	4	7
10	1	2	3	7
11	6	7		

Key		
8		7 = 87

(a) Write down his modal score.

94

 (1)

(b) Work out his median score.

99

 (2)

(c) Work the range of his scores.

$$117 - 87$$

30

 (2)

(d) What fraction of his scores were odd numbers. Give your answer in simplest form.

$$\frac{10}{16}$$

5
8

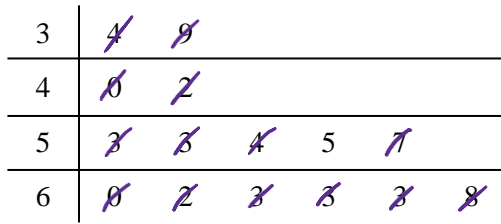
 (2)

(Total for Question 4 is 7 marks)



5 15 students were asked to solve a maths problem as fast as possible.

The stem and leaf diagram below shows the times of the 15 students in seconds.



Key	
3	4 = 34 seconds

(a) Write down the modal time.

63 seconds
 (1)

(b) Work out the median time.

55 seconds
 (2)

(c) Work the range of the times.

$$68 - 34$$

34 seconds
 (2)

A student from the class is selected at random.

(d) What is the probability that the student completed the maths problem in less than 60 seconds.

$\frac{9}{15}$
 (2)

(Total for Question 5 is 7 marks)



6 20 students ran the 100 metre race during their P.E. lesson. Their times were recorded.

The stem and leaf diagram below shows the times of the 20 students in seconds.

13	2	8	8	9			
14	0	4	4	6	7	7	9
15	2	2	2	4	8	9	
16	0	1	2				

Key	
13	2 = 13.2 seconds

(a) Write down the modal time.

..... **15.2** seconds
(1)

(b) Work out the median time.

..... **14.8** seconds
(2)

(c) Work the range of the times.

$$16.2 - 13.2 = 3.0$$

..... **3** seconds
(2)

Students who complete the race in under 14 seconds qualify for the school team.

(d) Work out the percentage of students that qualified for the school team.

$$\frac{4}{20} = \frac{2}{10} = \frac{20}{100}$$

..... **20%**
(2)

(Total for Question 6 is 7 marks)



7 The maths test scores of 15 students are shown below.

77	82	94	91	96
83	100	76	82	97
88	87	70	84	99

Kieran draw an ordered stem and leaf diagram to show the scores.
His diagram is shown below.

7	0	6	7		
8	2	2	4	7	8
9	1	4	7	6	9
10	0				

Kieran's diagram is **not** fully correct.

Write down three things that are wrong with Kieran's diagram.

1. There is no key

2. The number 83 has not been included on the diagram.

3. It is not in order. 97 comes before 96 on the diagram.

(Total for Question 7 is 3 marks)

