

Stem and Leaf Diagrams

For Pearson Edexcel GCSE Mathematics (1MA1) • Foundation tier

Name _____

Total marks: **25**

Answer **all** questions in the spaces provided. Show your working: marks are given for correct method.

- 1** The stem and leaf diagram shows the ages, in years, of the members of a club.

1	5 7 8 8
2	0 2 3 5 9
3	1 1 1 4 6
4	0

Key: 2 | 3 represents 23 years

- (a) How many people are in the club?

.....
(1)

- (b) Write down the mode.

.....
(1)

- (c) Find the median age.

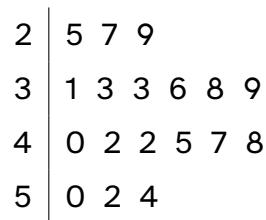
.....
(1)

- (d) Work out the range of the ages.

.....
(1)

(Total for Question 1 is 4 marks)

- 2 A café recorded the number of cups of tea it sold each day for 18 days.
The stem and leaf diagram shows this information.



Key: 3 | 1 represents 31 cups

- (a) Work out the range.

.....
(1)

- (b) Leon says,

“The most cups of tea sold on one day was 9, because 9 is the
biggest number in the diagram.”

Is Leon correct?

You must give a reason for your answer.

.....
.....
(1)

(Total for Question 2 is 2 marks)

3 Here are the masses, in kg, of 15 dogs.

34 52 41 38 45 29 56 47 33 41 50 27 44 39 48

Show this information in an ordered stem and leaf diagram.

(3)

(Total for Question 3 is 3 marks)

- 4 Maya measured the heights, in cm, of 17 tomato plants.
The stem and leaf diagram shows her results.

2		6 8
3		0 4 4 7
4		1 3 5 5 5 9
5		2 3 6
6		0 8

Key: 4 | 1 represents 41 cm

- (a) Find the median height.

..... cm
(1)

- (b) Work out the range.

..... cm
(1)

- (c) One of the plants is chosen at random.
Find the probability that this plant is less than 35 cm tall.

.....
(2)

(Total for Question 4 is 4 marks)

5 Here are the times, in minutes, that 20 people spent in a gym.

41	56	28	34	62	45	30	59	47	36
25	53	41	67	39	50	43	32	64	48

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

(3)

(b) Work out the percentage of these people who spent more than 50 minutes in the gym.

..... %
(2)

(Total for Question 5 is 5 marks)

- 6** Some students did a reaction test.
The back-to-back stem and leaf diagram shows their times, in seconds.

Girls		Boys
8 5 2	1	4 9
7 3 3 1	2	2 5 8 9
4 0	3	1 3 6 8
	4	0

Key: 5 | 1 | 4 means 15 seconds for a girl and 14 seconds for a boy

- (a) Work out the median time for the girls and the median time for the boys.

.....
(2)

- (b) Compare the reaction times of the girls and the boys.

(2)

(Total for Question 6 is 4 marks)

- 7 Leah weighed 19 apples from an orchard.
The stem and leaf diagram shows their masses, in grams.

11	6 9
12	2 5 7
13	0 3 4 8 8
14	1 5 6 9
15	2 7
16	0 3 5

Key: 12 | 5 represents 125 g

Leah also weighed 19 apples from a supermarket.
The lightest of these apples weighed 132 g.
The heaviest of these apples weighed 158 g.
The median mass of these apples was 141 g.
Compare the masses of the apples from the orchard with the masses of the apples from the supermarket.

(3)

(Total for Question 7 is 3 marks)
