

Q Stem and Leaf Diagrams

- 2 These are the masses, in kilograms, of 16 newborn babies.

2.5 3.2 3.8 3.2 1.9 3.4 1.7 4.1
3.0 2.8 4.0 2.7 3.9 2.7 4.1 3.7

Complete the ordered stem-and-leaf diagram for the masses.



Key: 3 | 2 = 3.2

[2]

- 1 These are the test results for 14 students.

27 19 22 25 18 23 24
17 16 25 17 27 23 26

- (a) Construct an ordered stem-and-leaf diagram to show this information, including a key.



Key: | = [3]

- (b) Find the median.

..... [1]

- 2 The number of people swimming in a pool is recorded each day for 12 days.

24 28 13 38 15 26
45 21 48 36 18 38

- (a) Complete the stem-and-leaf diagram.

1	
2	
3	
4	

Key: 1|3 represents 13 swimmers

[2]

- (b) Find the median number of swimmers.

..... [1]

(b) 21 33 20 25 21 34 22 21 20 30 18

The list shows Ed's scores in 11 tests.

(i) Complete the stem-and-leaf diagram to show this information.

1	
2	
3	

Key: 2|5 represents 25

[2]

(ii) Find the median.

..... [1]

(iii) Find the interquartile range.

..... [2]

- 2 (a) Anna records the number of text messages she receives for 14 days.

17 15 31 38 31 22 13
18 21 27 28 21 31 29

- (i) Complete the stem-and-leaf diagram.

1	
2	
3	

Key:

[3]

- (ii) Find the median.

..... [1]

- (iii) Find the mode.

..... [1]

- (iv) Find the range.

..... [1]

- 3 Emma has 15 mathematics questions to complete.
The stem-and-leaf diagram shows the time, in minutes, it takes her to complete each question.

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

Key: $2 \mid 0 = 20$ minutes

Complete the table.

Mode	 min
Median	 min
Range	 min

[3]

- 3 The stem-and-leaf diagram shows the heights, in centimetres, of some plants.

10	4	8		
11	1	3	4	6
12	2	3	6	9
13	2	6	9	

Key: $10 \mid 4$ represents 10.4 cm

- (a) Find the median height.

..... cm [1]

- (b) Work out the mean height.

..... cm [2]

- 3 The stem-and-leaf diagram shows the number of hours that each of 16 students studied last week.

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

Key: 1|2 represents 12 hours

Find

- (a) the median,

..... h [1]

- (b) the mode,

..... h [1]

- (c) the range.

..... h [1]

- 2 The stem-and-leaf diagram shows the time, in minutes, it takes each of 15 people to complete a race.

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

Key: 1|6 represents 16 minutes

Find

- (a) the mode

..... min [1]

- (b) the range

..... min [1]

- (c) the median.

..... min [1]

- 2 The stem-and-leaf diagram shows the age, in years, of each of 15 women.

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

Key: 3 | 1 represents 31 years

Complete these statements.

The modal age is

The median age is

The percentage of women that are older than 51 years is % [3]

- 16 The stem-and-leaf diagram shows the mass of each of 13 packets.

3	1 2 8
4	0 1 2 3 3 8
5	1 2 3 4

Key: 3 | 1 represents 31 g

- (a) Work out the interquartile range.

..... g [3]

- (b) Two of these packets are chosen at random.

Find the probability that the one packet has a mass of more than 50 g and the other packet has a mass of less than 50 g.

..... [3]

- 6 There are 15 giraffes in a group.
The table gives information about the heights of the 15 giraffes.

One giraffe has a height of 2.6 m
No giraffe is shorter than 2.5 m
The range of heights for the 15 giraffes is 2.3 m
More than 3 giraffes have the same height
The modal height for the giraffes is 3.9 m

The stem-and-leaf diagram shows information about the height of 9 of these giraffes.

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

Key: 4|1 represents a giraffe height of 4.1 m

Use the information in the table to complete the stem-and-leaf diagram for the group of 15 giraffes.

[3]