Stem-and-Leaf Diagrams

1

The ages of 11 people at a climbing wall are
23, 41, 35, 28, 19, 37, 24, 46, 31, 28, 33

(a) The diagram on the left is drawn. Complete the ordered one. (b) Find the median. (c) Find the range.

	in list order		ordered
1	9	1	
2	3 8 4 8	2	
3	5 7 1 3	3	
4	1 6	4	

Key: **1** | **9** means 19

(b) Median _____

(c) Range _____

2

The times, in minutes, 11 students take to walk to school are
32, 18, 25, 41, 27, 15, 33, 29, 38, 22, 26

(a) Draw the diagram, then draw it again ordered. (b) Find the median. (c) Find the range.

	in list order		ordered
1		1	
2		2	
3		3	
4		4	

Key: ___ | ___ means ___

(b) Median _____

(c) Range _____

3

The marks of 13 students in a spelling test are
45, 52, 38, 47, 56, 41, 39, 50, 44, 58, 52, 35, 53

(a) Draw an ordered stem-and-leaf diagram, with a key. (b) Find the median. (c) Find the mode.

3	
4	
5	

Key: _____

(b) Median _____

(c) Mode _____

4

The numbers of texts 11 friends sent on Saturday are
27, 14, 35, 22, 41, 19, 30, 26, 22, 38, 17

(a) Draw an ordered stem-and-leaf diagram, with a key. (b) Find the median. (c) Find the range.

(b) Median _____

(c) Range _____

5

The diagram shows the ages of 15 people in a choir.

(a) Write down the mode. (b) Find the median. (c) Find the range.

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

Key: **2** | **4** means 24

(a) Mode _____

(b) Median _____

(c) Range _____

6

The diagram shows the points 12 teams scored in a quiz.

(a) Write down the mode. (b) Find the median.

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

Key: **12** | **4** means 124 points

(a) Mode _____

(b) Median _____

7

The diagram shows how many push-ups 10 students did in one minute.

(a) Find the median. (b) Write down the mode.

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

Key: **1** | **5** means 15

(a) Median _____

(b) Mode _____

8

Leah drew this diagram for 9 marks. She says the median is 30, the 5th leaf. Explain her mistake and find the median.

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

Key: **2** | **6** means 26

Median _____

Stem-and-Leaf Diagrams *further practice*

9

The ages of 15 people on a coach trip are

34, 52, 47, 28, 61, 45, 39, 53, 44, 30, 26, 58, 41, 47, 65

(a) Draw an ordered stem-and-leaf diagram, with a key. (b) Find the median. (c) Find the range.

(b) Median _____

(c) Range _____

10

The diagram shows how many tickets were sold for 14 shows. Find the median.

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

Key: **3** | **2** means 32

Median _____

11

The diagram shows how many people visited a museum on 11 days.

(a) Write down the mode. (b) Find the range.

20	8 9
21	3 5 5 7
22	0 4
23	1 6 9

Key: **21** | **5** means 215 visitors

(a) Mode _____

(b) Range _____

12

The diagrams show the scores of 9 players in two teams. Key: 2 | 4 means 24.
Which team has the higher median?
Show how you know.

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

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

Answer _____

13

The diagram shows the lengths, in cm, of 11 snakes at a zoo. One leaf is missing.
The range is 35 cm.
Find the missing length.

1	7 9
2	2 5 6
3	0 4 8
4	3 5
5	☐

Key: **1** | **7** means 17 cm

Answer _____

14

Ravi says the range of this diagram is 8 − 1 = 7. Explain his mistake and find the range.

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

Key: **5** | **1** means 51

Range _____

15

Mia says the mode of this diagram is 3, because the 3 row has the most leaves. Explain why she is wrong and find the mode.

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

Key: **1** | **4** means 14

Mode _____

16

The diagram shows how long, in minutes, 9 people spent at a gym. The median is 34.
One more person spends 61 minutes there. Sam says the median is still 34. Is he right? Explain.

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

Key: **2** | **5** means 25 minutes

Answer _____