



S24-10min Stem and Leaf Diagrams: 10-minute Pack

EDEXCEL 1ST0 · Calculator allowed · about 10 minutes

Total Marks

Name: _____ Date: ____ / ____ / ____

Answer ALL questions. Show all your working.

- 1** Priya recorded the ages, in years, of 11 people at a Saturday book club. The stem-and-leaf diagram shows her results.

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

Key: 2 | 3 means 23 years old

- (a) Using the key, write down the age represented by the entry 3 | 1. (1)
-
- (b) Write down the modal age. (1)
-
- (c) Write down the number of people aged 30 or over. (1)
-
- (d) Work out the range of the ages. (2)
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(Total for Question 1 is 5 marks)

- 2 The number of emails received in one week by 13 office workers were:

21, 34, 18, 29, 34, 15, 40, 27, 33, 19, 22, 36, 41

Construct an ordered stem-and-leaf diagram to show this information. Use the tens digit as the stem. Include a key.

Stem	Leaf
1	
2	
3	
4	

Key: ____ | ____ means _____

(Total for Question 2 is 3 marks)

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- 3 Write down two advantages of showing raw data in a stem-and-leaf diagram, rather than as a plain list of numbers.

(Total for Question 3 is 2 marks)

Mark scheme · S24-10min Stem and Leaf Diagrams: 10-minute Pack

Question 1

- (a) **B1** 31 cao
- (a) **Answer: 31 years**
- (b) **B1** 20 cao
- (b) **Answer: 20 years**
- (c) **B1** 3 cao
- (c) **Answer: 3**
- (d) **M1** 37 - 12, oe
- (d) **A1** 25 cao
- (d) **Answer: 25 years**

Question 2

- **M1** stems 1, 2, 3, 4 used with all 13 values placed (allow up to one misplaced leaf)
- **A1** leaves 5 8 9 | 1 2 7 9 | 3 4 4 6 | 0 1 all correctly ordered within each row, cao
- **B1** correct key given, e.g. 3 | 4 means 34 emails
- **Answer: 1 | 5 8 9 2 | 1 2 7 9 3 | 3 4 4 6 4 | 0 1 Key: 3 | 4 means 34 emails**

Question 3

- **B1** valid advantage, e.g. it shows the shape/spread of the data at a glance, oe
- **B1** a second, distinct valid advantage, e.g. the original data values are not lost and can still be read exactly, oe
- **Answer: For example: (1) It shows the shape of the distribution at a glance. (2) The original data values are kept, so nothing is lost or rounded.**