

Name: _____

Exam Style Questions

Stem and Leaf Diagrams



Corbettmaths

Ensure you have: Pencil, pen, ruler, protractor, pair of compasses and eraser

You may use tracing paper if needed

Guidance

1. Read each question carefully before you begin answering it.
2. Don't spend too long on one question.
3. Attempt every question.
4. Check your answers seem right.
5. Always show your workings

Revision for this topic

www.corbettmaths.com/contents

Video 169

Video 170

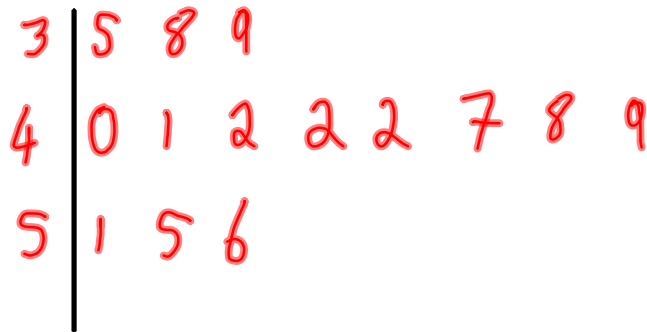


1. Here are the ages of 14 adults.

~~42~~ ~~35~~ ~~56~~ ~~39~~ ~~40~~ ~~51~~ ~~47~~
~~38~~ ~~42~~ ~~55~~ ~~42~~ ~~48~~ ~~49~~ ~~41~~

Draw an ordered stem and leaf diagram for these ages.

key 3|5 means 35

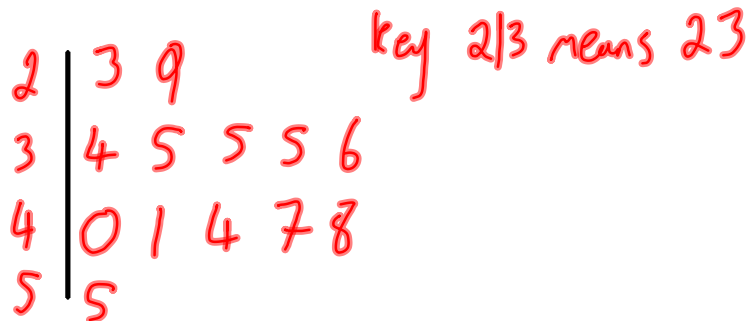


2. Helen plays darts.

Here are her scores.

~~55~~ ~~23~~ ~~48~~ ~~29~~ ~~41~~ ~~47~~ ~~36~~
~~35~~ ~~40~~ ~~35~~ ~~44~~ ~~34~~ ~~35~~

(a) Draw an ordered stem and leaf diagram to show her scores.



(3)

(b) Write down the mode.

35
.....
(1)

(c) Work out the range.

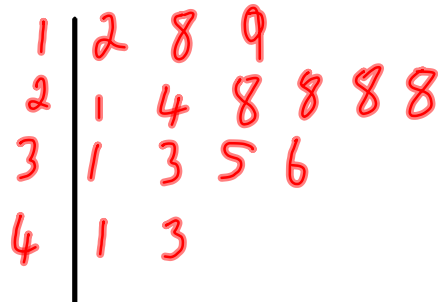
55 - 23

32
.....
(1)

3. Here are the lengths in millimetres of 15 earthworms.

~~43~~ ~~19~~ ~~35~~ ~~28~~ ~~21~~
~~28~~ ~~28~~ ~~18~~ ~~24~~ ~~33~~
~~31~~ ~~36~~ ~~12~~ ~~41~~ ~~28~~

(a) Complete an ordered stem and leaf diagram to show this information.



1 | 2 means 12

(3)

(b) How many earthworms are over 40 millimetres?

2

(1)

(c) Write down the mode.

28

(1)

(d) What fraction of the earthworms are under 20 millimetres?

$\frac{3}{15} = \frac{1}{5}$

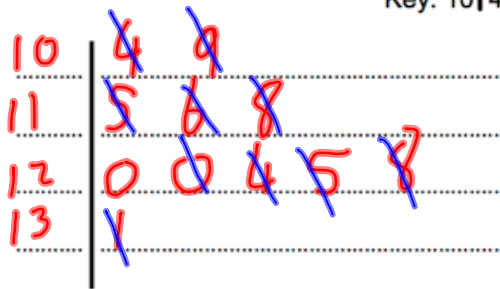
(1)

4. The number of people visiting a cafe each day, for 11 days, is listed below.

104 131 120 115 109 124 128 118 116 120 125

(a) Complete an ordered stem and leaf diagram for this information.
A key has been included.

Key: 10|4 means 104



(2)

(b) Write down the mode.

120
(1)

(c) Write down the median.

120
(1)

(d) Write down the range.

131 - 104

27
(1)

5. The number of passengers on 10 buses was recorded. The stem and leaf diagram shows this information.

Key: 1|4 means 14 passengers

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

- (a) Work out the median.

$$\frac{17}{\dots\dots\dots}$$

(1)

A bus is selected at random.

- (b) What is the probability the bus has more than 20 passengers?

$$\frac{3}{10}$$

(1)

The next bus has 32 passengers.

- (c) Tick the box to show how this will effect the range.

The range will decrease

The range will stay the same

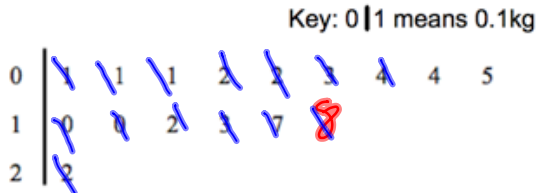
The range will increase

$$30 - 7 = 23$$

$$32 - 7 = 25$$

(1)

6. The weights of books on a shelf are recorded in a stem and leaf diagram.



(a) Write down the median.

0.4kg
(1)

(b) Work out the total weight of books on the shelf.

$$0.1 + 0.1 + 0.1 + 0.2 + 0.2 + 0.3 + 0.4 + 0.4 + 0.5 = 2.3$$

$$1.0 + 1.0 + 1.2 + 1.3 + 1.7 = 6.2$$

$$2.3 + 6.2 + 2.2 =$$

10.7
(2)

A book weighing 1.8kg is added to the shelf.

Peter says the median will remain the same.

(c) Is Peter correct? Explain your answer.

No, it would increase to 0.45kg

.....
(2)