

GCSE Exam Questions on Stem and Leaf Diagrams

Question 1. (AQA June 2003 Intermediate Paper 1)

The stem and leaf diagram shows the ages, in years, of 15 members of a badminton club.



Key: | 2 | 7
means an age of 27 years

(a) What is the median age of the members?

[1 mark]

(b) What is the range of the ages?

[1 mark]

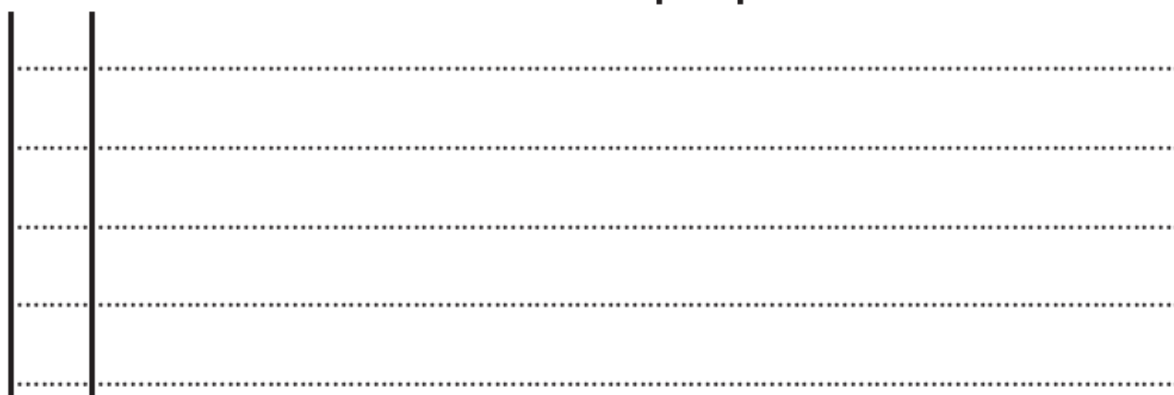
Question 2 (AQA June 2005 Intermediate Paper 1)

Some pupils took part in an obstacle race, and their times (in seconds) are recorded below.

23 36 18 29 44 39 36 54 43 41

Draw an ordered stem and leaf diagram to show this information.

Key: | 2 | 3 represents 23 seconds



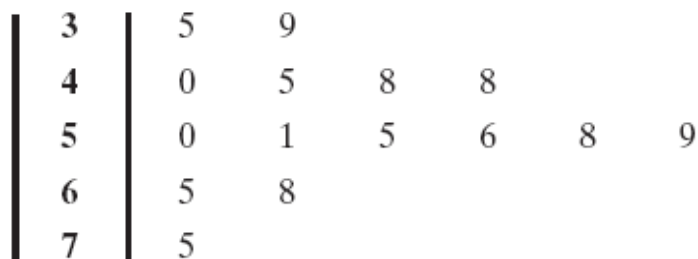
(3 marks)

GCSE Exam Questions on Stem and Leaf Diagrams

Question 3 (AQA November 2003 Intermediate Paper 1)

The stem and leaf diagram shows the amounts that 15 pupils spend on healthy food.

Key: | 3 | 5 means 35 pence



(a) What is the range of the amounts spent?

[1 mark]

(b) What is the median of the amounts spent?

[1 mark]

(a) What is the mode of the amounts spent?

[1 mark]

Question 4 (AQA November 2006 Intermediate Paper 1)

Ten pupils took the following times in minutes to get to school:

5 12 7 14 23 11 18 10 8 11

Draw an ordered stem and leaf diagram to show this information.

Key: | 1 | 2 represents 12 minutes



(3 marks)

GCSE Exam Questions on Stem and Leaf Diagrams

Question 5 (AQA June 2006 Intermediate Paper 2 - Calculator)

A rounders coach records the number of rounders the players in her squad scored in a season. All the players scored at least once. She shows the data in a stem and leaf diagram.

Key | 2 | 7 represents 27 rounders scored

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

(a) What is the range of the data?

[1 mark]

(b) How many players are there in the squad?

[1 mark]

(c) What is the median number of rounders scored?

[1 mark]

(a) Calculate the mean number of rounders scored.

[3 marks]

Question 6 (AQA November 2005 Intermediate Paper 2 - Calculator)

The ordered stem and leaf diagram shows the number of cameras sold each day, over a period of 20 days.

Key | 1 | 2 represents 12 cameras

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

The next day 28 cameras are sold.

Does the median increase, decrease or stay the same?

You **must** show your working.

[3 marks]

GCSE Exam Questions on Stem and Leaf Diagrams

Question 7 (OCR June 2005 Intermediate Paper 4 - Calculator)

<p>The marks of 25 students in a Maths exam are listed in the unordered stem and leaf diagram below.</p> <p>3 2 represents 32</p> <table> <tr><td>3</td><td>2 0 4</td></tr> <tr><td>4</td><td>8 6</td></tr> <tr><td>5</td><td>3 2 1</td></tr> <tr><td>6</td><td>5 9 7</td></tr> <tr><td>7</td><td>1 4 7 0 9 4 5</td></tr> <tr><td>8</td><td>0 2 9 6 0</td></tr> <tr><td>9</td><td>4 6</td></tr> </table>	3	2 0 4	4	8 6	5	3 2 1	6	5 9 7	7	1 4 7 0 9 4 5	8	0 2 9 6 0	9	4 6	<p>(a) Write these marks in an ordered stem and leaf diagram.</p> <table> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> <tr><td>6</td><td></td></tr> <tr><td>7</td><td></td></tr> <tr><td>8</td><td></td></tr> <tr><td>9</td><td></td></tr> </table> <p>[2 marks]</p>	3		4		5		6		7		8		9	
3	2 0 4																												
4	8 6																												
5	3 2 1																												
6	5 9 7																												
7	1 4 7 0 9 4 5																												
8	0 2 9 6 0																												
9	4 6																												
3																													
4																													
5																													
6																													
7																													
8																													
9																													
<p>(b) Work out the range of the marks.</p> <p>[1 mark]</p>	<p>(c) What percentage of the students gained a mark higher than 60?</p> <p>[3 marks]</p>																												

Question 8 (OCR June 2006 Intermediate Paper 4 - Calculator)

<p>The weights of 25 dogs are shown in the stem and leaf diagram on the right.</p>	<table> <tr><td>0</td><td>9</td></tr> <tr><td>1</td><td>1 3 4</td></tr> <tr><td>2</td><td>0 1 1 2 5 6 7</td></tr> <tr><td>3</td><td>1 4 4 5 6 7 9</td></tr> <tr><td>4</td><td>0 2 2 2 8</td></tr> <tr><td>5</td><td>4 6</td></tr> </table> <p>5 4 represents 5.4 kg</p>	0	9	1	1 3 4	2	0 1 1 2 5 6 7	3	1 4 4 5 6 7 9	4	0 2 2 2 8	5	4 6
0	9												
1	1 3 4												
2	0 1 1 2 5 6 7												
3	1 4 4 5 6 7 9												
4	0 2 2 2 8												
5	4 6												
<p>(a) Write down the weight of the heaviest dog.</p> <p>[1 mark]</p>													
<p>(b) Work out the range of the weights.</p> <p>[1 mark]</p>	<p>(c) Find the median weight.</p> <p>[1 mark]</p>												