

GCSE Exam Questions

Stem and Leaf Diagrams | Statistics



GCSE Exam Questions: Stem and Leaf Diagrams

1) (a) The time taken by pupils to complete a puzzle is given below.

21, 23, 22.5, 20.7, 19.8, 21.7, 21, 21.3, 20.6, 19.3, 20.8, 17.5, 18.4, 17.4, 22.1, 22, 21.1, 18.2, 16.4, 19.8

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

(b) Find the median time.

(3)

(1) (4 marks)



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2) The stem and leaf diagram below shows the scores of 20 students in a competition:

Key : 4	3 represents 43 marks							
4	3	6						
5	3							
6	7	8	8					
7	0	0	8	9				
8	1	5	6					
9	4	7	7	9	9			
10	4	7						

(a) Find the median score.

(b) Find the mean score.

(2)

(1)

(c) Afterwards, it was discovered that the score 95 marks had been missed off the original list of data.

If this piece of data had been included, what effect would it have on the median from part (a)

Tick the correct statement.

- \Box The median would decrease.
- \Box The median would increase by 5
- \Box The median would stay the same
- \Box The median would increase by 1

(1) (4 marks)



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3) The time taken, in minutes, for 20 pupils to get to school were recorded.A student was asked to draw an ordered stem and leaf diagram for the data, shown below.

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

The student has not drawn the stem and leaf diagram correctly. Identify three mistakes the student has made.

1.	
2.	
3.	

(3 marks)



GCSE Exam Questions: Stem and Leaf Diagrams Answers

	Question	Answer			
1) (a)	The time taken by pupils to complete a puzzle is given below. 21, 23, 22.5, 20.7, 19.8, 21.7, 21, 21.3, 20.6, 19.3, 20.8, 17.5, 18.4, 17.4, 22.1, 22, 21.1, 18.2, 16.4, 19.8 Draw an ordered stem and leaf diagram to represent this information.	(a) 16 4 17 4 5 18 2 4 19 3 8 20 6 7 8 20 6 21 0 0 22 0 1 3 23 0 1 Key : 16 Key seconds Correct stem values Correct Key	(1) (1) (1)		
(b)	Find the median time.	(b) 20.75 seconds	(1)		
2) (a)	The stem and leaf diagram below shows the scores of 20 students in a competition: Key: 4 3 represents 43 marks 4 3 6 5 3 6 7 8 8 7 0 0 8 9 8 1 5 6 9 4 7 7 9 9 10 4 7 Find the median score.	(a) 80 marks	(1)		
(b)	Find the mean score.	(b) their 1591 ÷ 20 79.55	(1) (1)		
(c)	 Tick the correct statement. The median would decrease. The median would increase by 5 The median would stay the same The median would increase by 1 	(c) The median would increase by 1	(1)		



GCSE Exam Questions: Stem and Leaf Diagrams Answers

	Question							Answer	Marks
3)	The time taken, in minutes, for 20 pupils to get to school were recorded. A student was asked to draw an ordered stem and leaf diagram for the data, which is shown below.						oupils to ered stem 1 is shown	Top line not in ascending order oe Only 19 values in the diagram oe No key given oe	(1) (1) (1)
	0	6	7	6					
	1	1	3	5	8	9			
	2	0	0	0	1	4	9		
	3	0							
	4	6	7	8	8				
	The student has not drawn the stem and leaf diagram correctly. Identify three mistakes the student has made.						and leaf has made.		

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