

8300

GCSE MATHEMATICS

Foundation tier – Questions by Topic

Statistics

Finding the mode

v1.0

Name _____

Materials

For this paper you must have:

- Mathematical instruments

Information

- The marks for questions are shown in brackets

Advice

- In all calculations, show clearly how you work out your answer

For questions 1 to 4 you must **NOT** use a calculator.



Q1.

What name is given to the **most frequent** item in a list?

Circle your answer.

mean

median

mode

range

(Total 1 mark)

Q2.

What does the longest bar in a bar chart represent?

Circle your answer.

mean

median

mode

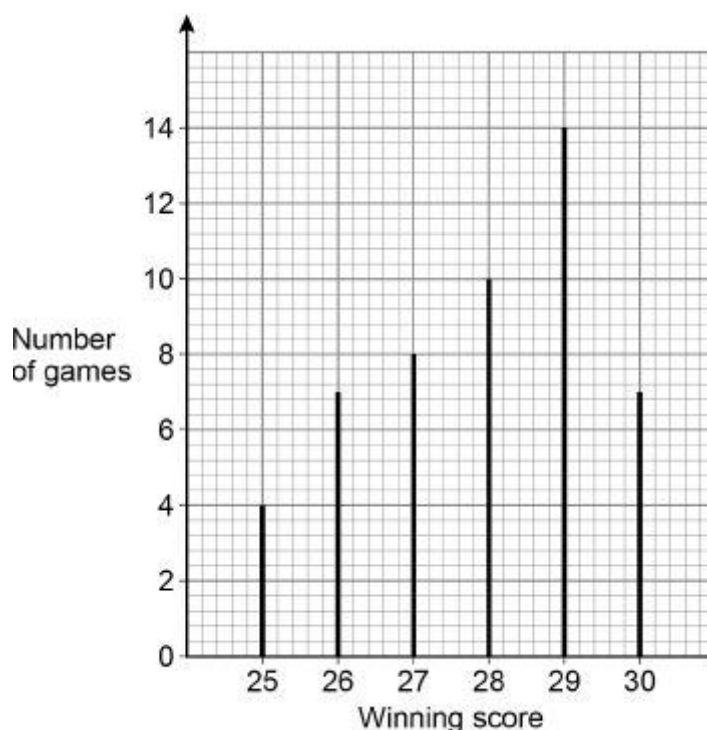
range

(Total 1 mark)

Q3.

A game is played 50 times.

The vertical line chart shows the winning scores.



(a) Write down the mode.

(1)

The game is played again.

(b) Use the chart to estimate the probability that the winning score is 25.

(1)

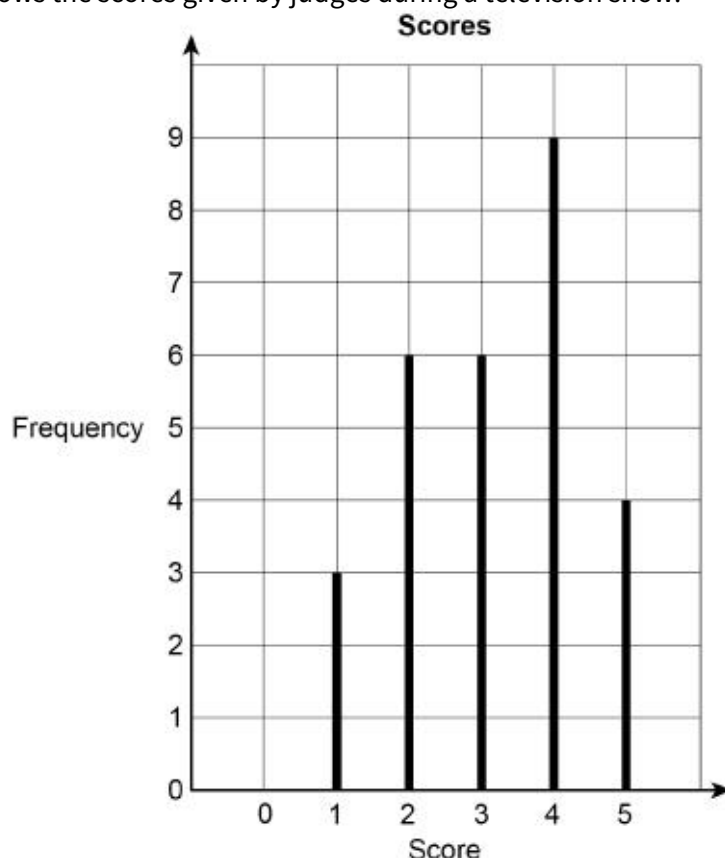
(c) Use the chart to estimate the probability that the winning score is 27 or more.

(2)

(Total 4 marks)

Q4.

The diagram shows the scores given by judges during a television show.



(a) Which score was the mode?

(1)

(b) There were 4 judges.
Each judge gave one score in each round.
How many rounds were there?

(3)

(Total 4 marks)

For the rest of the questions, you may use a calculator.



Q5.

What is the mode of these numbers?

3 4 6 6 7 8 9 13

Circle your answer.

6 6.5 7 10

(Total 1 mark)

Q6.

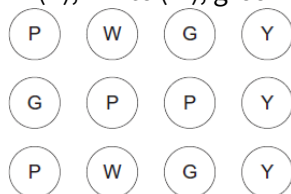
Put the numbers 1, 2 or 3 on each card so that

- each number is used at least once
- the mode of the numbers is 2.

(Total 2 marks)

Q7.

A bag has 12 counters. They are pink (P), white (W), green (G) or yellow (Y).



One counter is taken from the bag.

A new counter is then added to the bag.

The mode is now yellow.

(a) What colour counter was taken out?

Circle your answer.

Pink White Green Yellow

(1)

(b) What colour counter was added?

Circle your answer.

Pink White Green Yellow

(1)

(Total 2 marks)

Q8.

Here are six numbers.

14 14 15 18 21 24

(a) Why is 14 the mode?

(1)

(b) Each number is doubled. What is the new mode?

(1)

(c) Here are the six numbers again.

14 14 15 18 21 24

Round each number to the nearest 10.

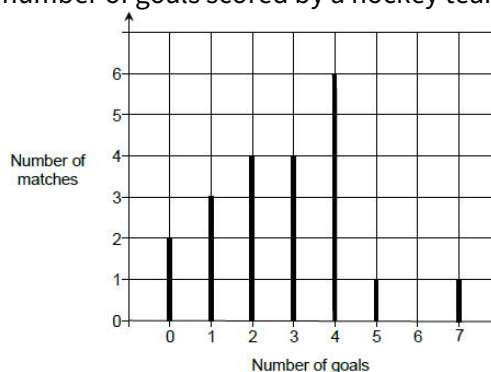
What is the mode now?

(2)

(Total 4 marks)

Q9.

The line graph shows the number of goals scored by a hockey team.



(a) What is the mode of the number of goals?

(1)

(b) How many matches did the hockey team play altogether?

(2)

(c) In one of the matches, this team won by 6 goals.

What was the score in that match?

(1)

(Total 4 marks)

Q10.

The number of DVDs bought last month by each girl in a class are shown.

2 0 5 4 3 1 5 2
3 3 4 3 3 2 4 3

(a) Complete the table.

Number of DVDs	Tally	Frequency
0		
1		
2		
3		
4		
5		

(3)

(b) Write down the mode.

(1)

(c) The number of DVDs bought last month by each boy in the class are shown.

Number of DVDs	
0	○
1	○ ○ ○
2	○ ○
3	○ ◐
4	◐

Key: ○ represents 2 boys

The class teacher says



On average, the girls in my class buy more DVDs than the boys.

Compare the modes for the girls and boys to decide if the teacher is correct.

(2)

(Total 6 marks)

Q11.

Gemma has four groups of friends on a social media site.
The table shows the number of friends in each group.

Group	Number of friends
Family	8
Netball	8
School	26
Guides	11

- (a) Which group is the mode?

(1)

- (b) Gemma wants a pictogram to show the information.
She has drawn the first two rows.
Complete the pictogram.
Remember to complete the key.

Key:  represents _____ friends

Family	 
Netball	 
School	
Guides	

(3)

(Total 4 marks)