INVESTIGATING THE RANGE OF A DATASET

QUESTION 1.

The number of points scored in 10 games is shown in the table.

Game	A	B	C	D	E	F	G	H	I	J
No. of points	11	23	12	5	6	24	16	18	14	29

What was the minimum number of points scored?

QUESTION 2.

What was the maximum number of points scored?

QUESTION 3.

What was the range of points scored?

QUESTION 4.

1. Enter the number of goals scored during each game in the yellow boxes in the GeoGebra file.

2. Click "Display Data" & check that you've entered the data correctly.

3. Click "Calculate statistics" to get the minimum, maximum and range.

4. Do the results match your own calculations from Q1, Q2 & Q3?

( )   Yes

( )   No

QUESTION 5.

What is meant by the range of a set of data?

( )   The difference between the minimum and maximum value

( )   The minimum value

( )   The average

( )   The maximum value

QUESTION 6.

What does the range tell you about a set of data?

( )   How spread out it is

( )   The type of data

( )   Where it's centred

QUESTION 7.

Calculate the range of the following data manually: 11, 2, 2, 5, 6, 4, 16, 8, 14, 17

QUESTION 8.

The range of the data: 11, 23, 2, 5, 6, 24, 16, 18, 14, 29 is 27. If I reorder the data as follows: 2, 5, 6, 11, 14, 16, 18, 23, 24, 29 and recalculate my range what will I find?

( )   The range changes.

( )   The range does not change.

QUESTION 9.

The data 11, 2, 2, 5, 6, 4, 16, 8, 14, 17 has a range of 15. If I replace the numbers 4, 5 & 6 with 10, 11 &12, what effect will this have on the range?

( )   The range will not change

( )   The range will increase

( )   The range will decrease

QUESTION 10.

The data 11, 2, 3, 5, 6, 4, 16, 8, 14, 17 has a range of 15. If I replace the numbers 2 & 17 with 1 & 20 - what effect will this have on the range?

( )   The range will not change

( )   The range will decrease

( )   The range will increase

QUESTION 11.

Which of these statements about the range is most correct?

( )   The range only depends on the minimum and maximum values in a dataset.

( )   The range depends on the order in which items are listed in a set of data.

( )   The range depends on all the values in a dataset.

QUESTION 12.

Two sets of data are shown.

Set A: 2, 3, 5, 7, 10

Set B: 21, 23, 23, 26, 29

Which set has the larger range?

( )   A

( )   Neither - both have the same range

( )   B

QUESTION 13.

Two sets of data are shown.

Set A: 2, 3, 5, 7, 16

Set B: 19, 23, 23, 26, 29

Which set has the larger range?

( )   A

( )   B

( )   Neither - both have the same range

QUESTION 14.

Two sets of data are shown.

Set A: 2, 3, 5, 17, 36

Set B: 39, 23, 23, 26, 29

Which set of data is most spread out?

( )   A - it has the largest range and so is most spread out

( )   Neither - both have the same range and so are equally spread out

( )   B - it has the largest range and so is most spread out

QUESTION 15.

If a dataset has a small range, what does that tell you about the values in the dataset?

( )   The data values are all close in value.

( )   The data items are large numbers.

( )   The data values are spread out.

( )   The data items are small numbers.

QUESTION 16.

If a dataset has a large range, what does that tell you about the values in the dataset?

( )   The data values are all close in value.

( )   The data values are spread out.

( )   The data items are large numbers.

( )   The data items are small numbers.

QUESTION 17.

The range of a dataset is 12. If the minimum value is 25, what is the maximum value in the dataset?