

Grade 7

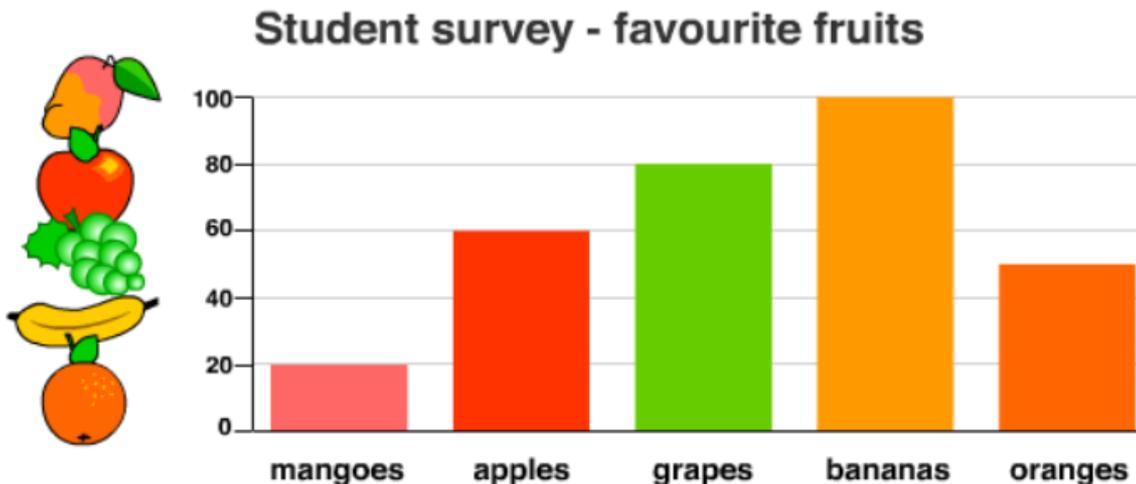
Unit 7 Vocabulary

Interpreting Data

(7.6G, 7.12ABC)

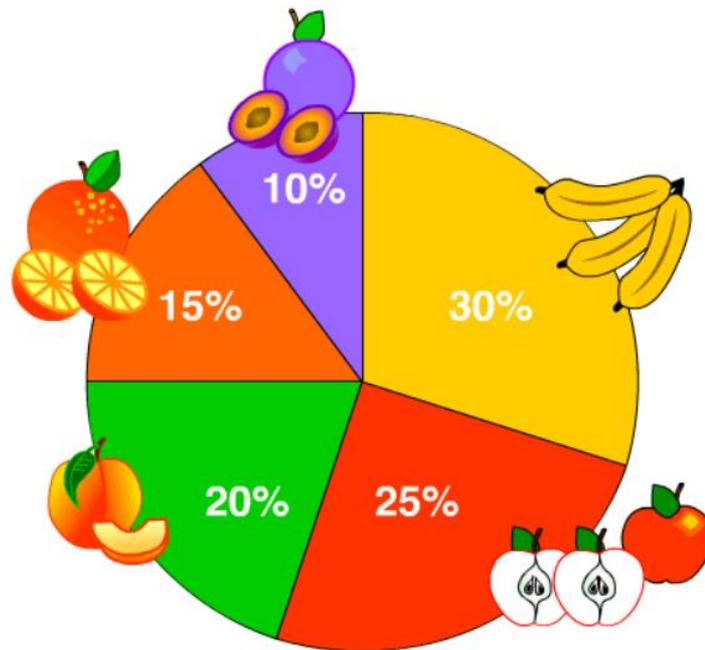
Bar Graph – A graph that organizes data into categories and uses lengths of bars to represent and compare data.

A graph drawn using rectangular bars to show how large each value is.



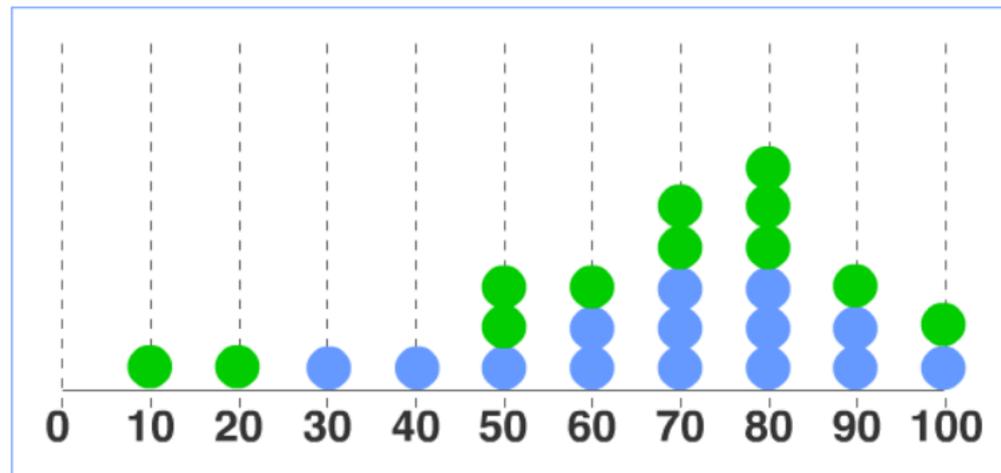
Circle Graph – A graph that uses sections of a circle to compare parts to parts and parts to the whole.

A graph in the form of a divided circle.



Dot Plot – A graph in which each numeric piece of data is represented by a dot or ‘x’ above a number line.

A graphical display of data using dots.

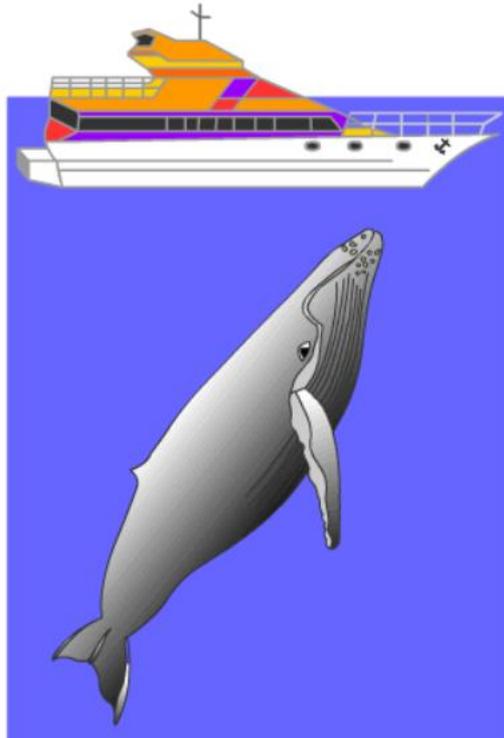


● girls
● boys

Mean – The average of a data set.

The average.

Mean Temperature for the Week



| | |
|---------------|-----------------|
| Monday | 35° |
| Tuesday | 30° |
| Wednesday | 32° |
| Thursday | 29° |
| Friday | 27° |
| Saturday | 37° |
| Sunday | 34° |
| Total: | 224° |
| Divide | 224° ÷ 7 |
| Mean: | = 32° |

Median – The middle value of an ordered data set.

Middle number when L \rightarrow G or G \rightarrow L

Order the values from least to greatest.
Locate the middle value.

3, 4, 5, 5, 5, **6**, 6, 7, 8, 8, 9

If the number of values is even, the median is the average of the two middle values.

Mode – The number or numbers in a data set that occur the most.

Most repeated number in a set.

3, 4, 5, 5, 5, 6, 6, 6, 8, 8, 9

modes = 5 and 6

two modes are called bimodal

more than two modes are called multimodal

Range – The difference between the highest and lowest value of a data set.

Largest number minus Smallest number.

highest score - lowest score = range

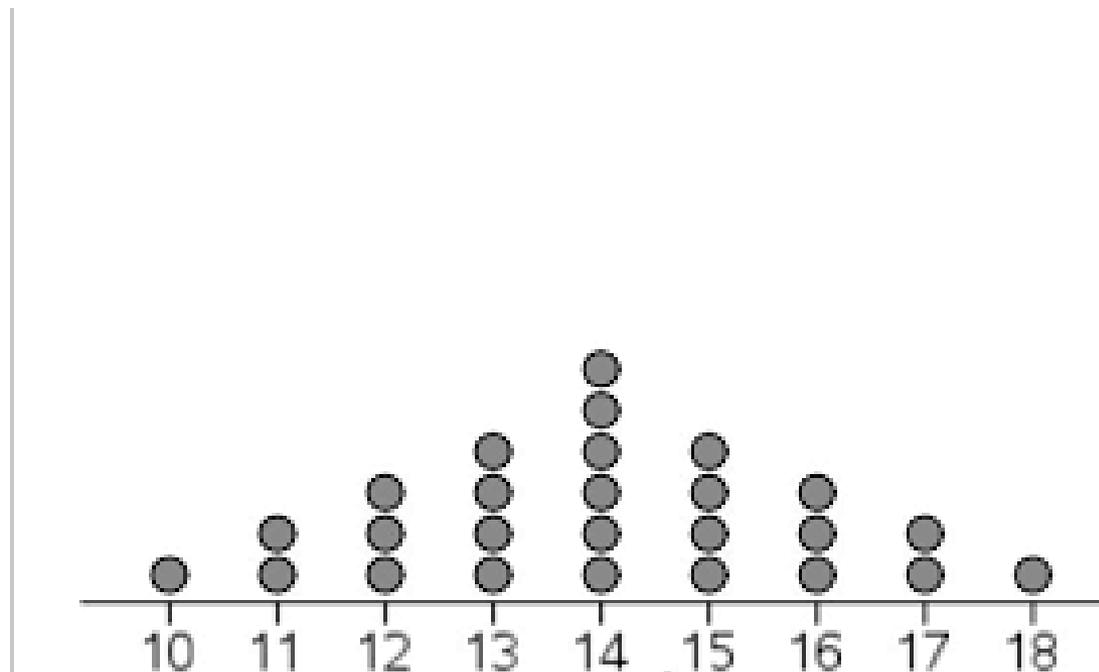
3, 4, 5, 5, 5, 6, 6, 7, 8, 8, 9

$$9 - 3 = 6$$

$$\text{Range} = 6$$

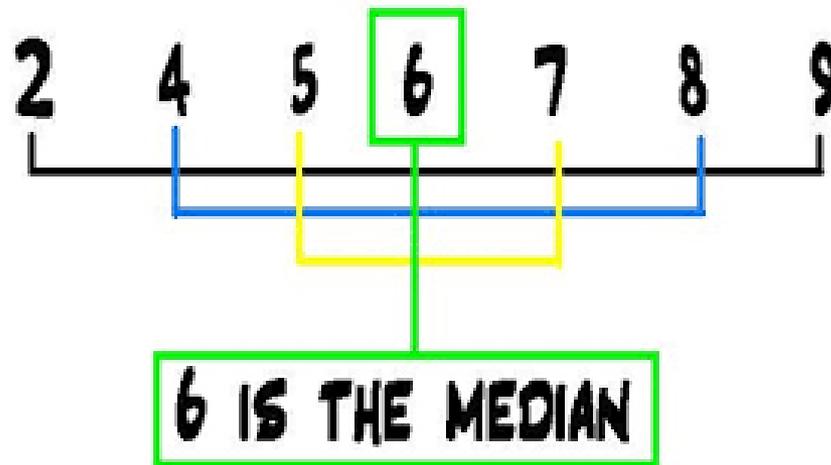
Symmetrical – A graph is symmetrical if it has about the same shape on either side of the middle.

A graph that is the same on both sides



Center— The middle of the distribution in a data set (median).

Another name for MEDIAN



Spread— The range of a set of data.

Another name for RANGE.

Range is the simplest measure of spread being the difference between the highest and lowest values in the data set.

However, it is not useful for analysing the spread of data between those two values.

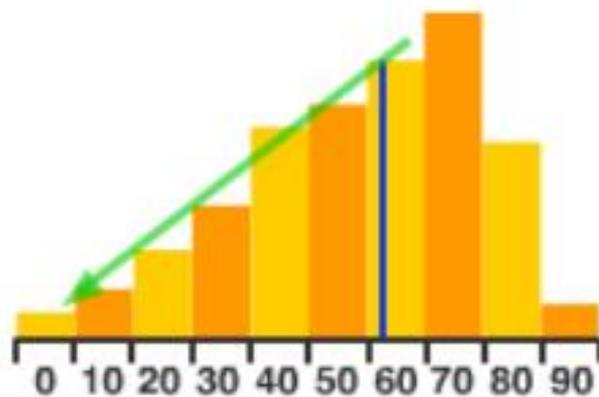
Temperature

| M | T | W | T | F | S | S |
|-----|-----|-----|-----|-----|-----|-----|
| 35° | 30° | 32° | 29° | 27° | 37° | 34° |

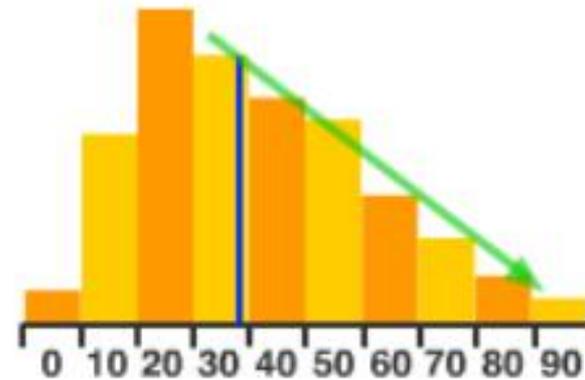
$$\text{Range} = 37 - 27 = 10$$

Skewed— When there are fewer data points on one side than the other.

When data has a "long tail" on one side or the other, so it is not symmetrical.



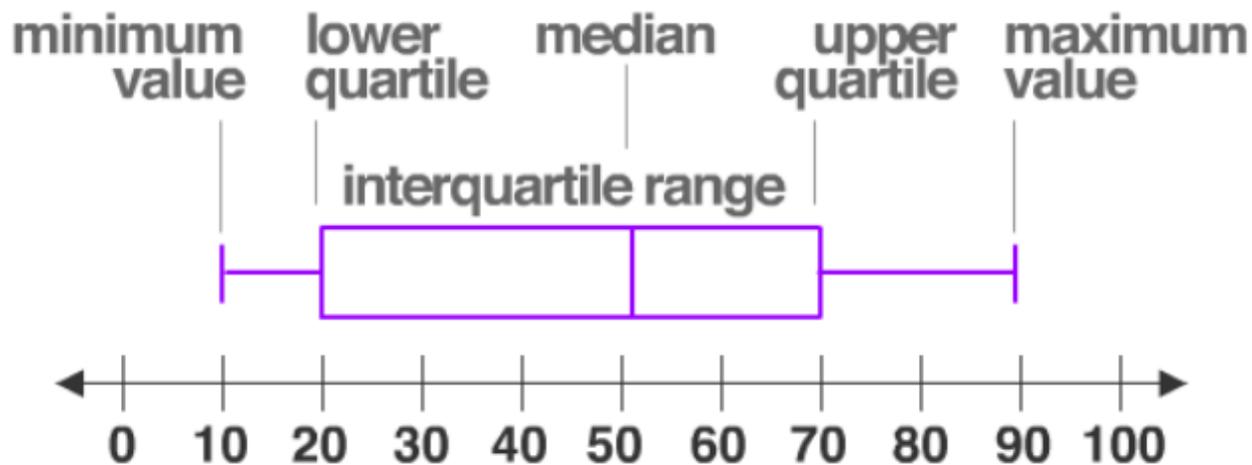
skewed left
negatively skewed,
long left tail



skewed right
positively skewed,
long right tail

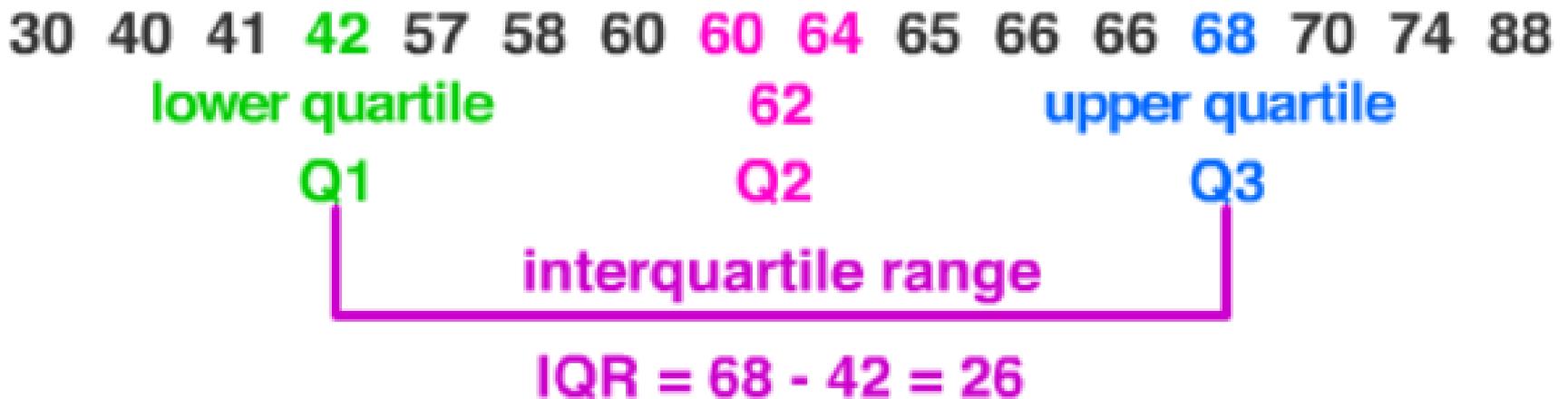
Box Plot— A graph that displays the range and distribution of data on a number line by dividing the data into quartiles; each section represents 25% of the data.

A diagram or graph using a number line to show the distribution of a set of data.



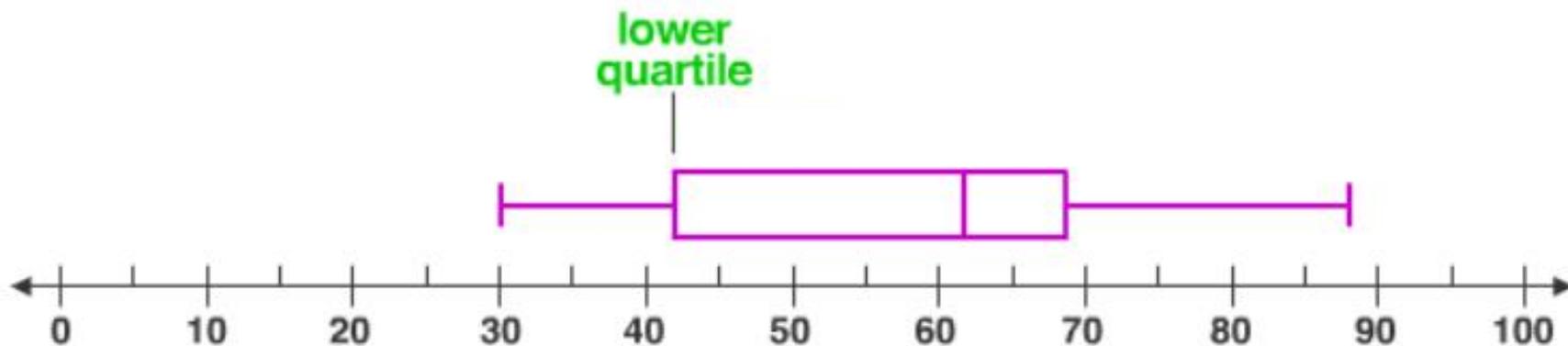
Interquartile Range (IQR) – The middle half of the data; the difference between the upper quartile and the lower quartile; the range of the box in the box plot.

Upper quartile (Q3)
minus the lower quartile (Q1)



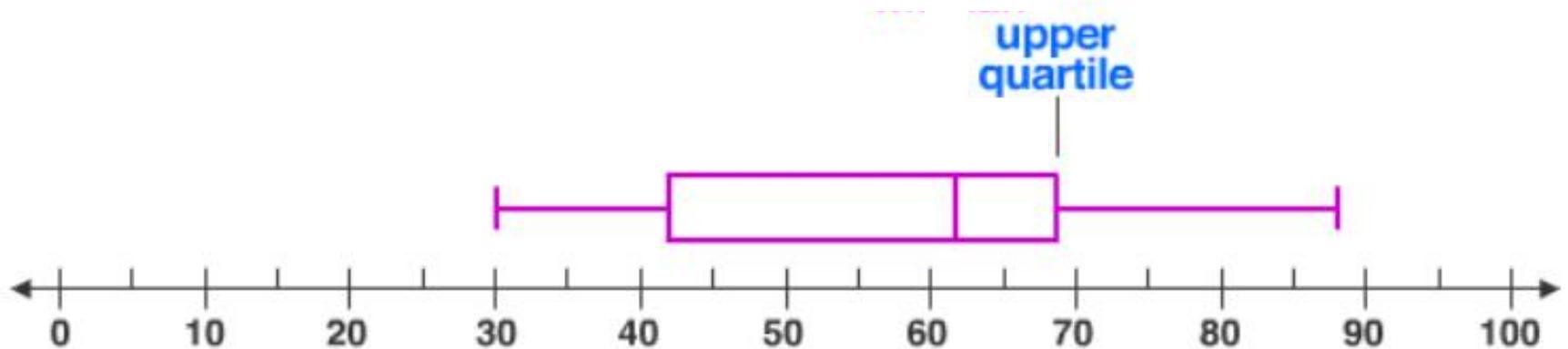
Lower Quartile— The median of the lower half of the data set.

Median of smaller half of numbers



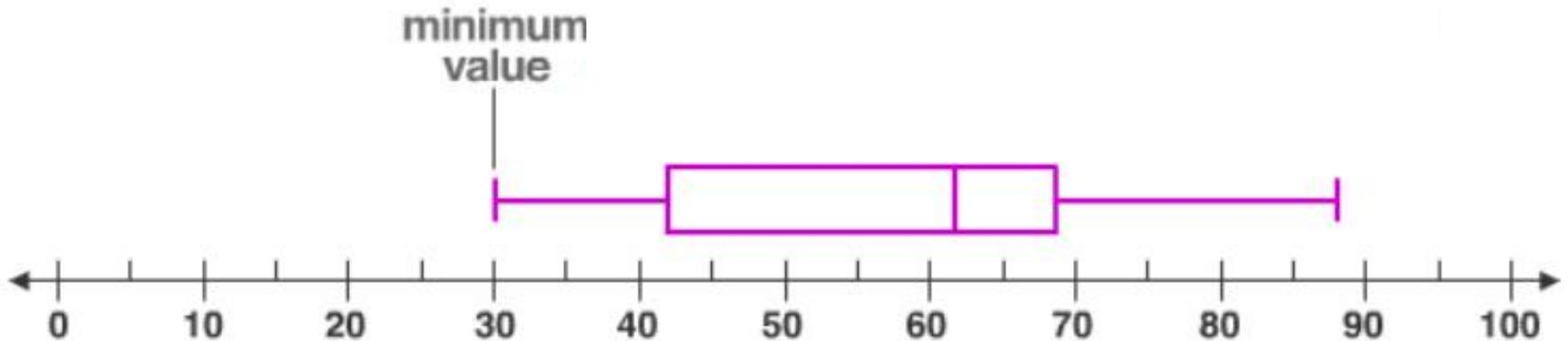
Upper Quartile – The median of the upper half of the data set.

Median of larger half of numbers



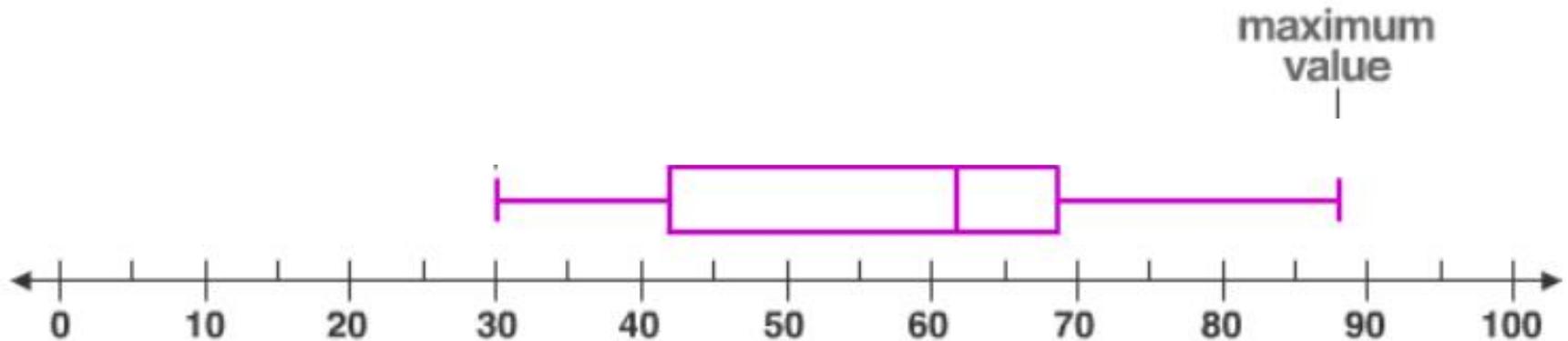
Lower Extreme— The smallest number of a data set.

Minimum



Upper Extreme— The largest number of a data set.

Maximum



Survey – A method of collecting information with the intention to draw conclusions about a population.

A method of collecting a sample of data by asking people questions.



Population – The entire group being studied.

Every person in a group



Sample – A small part of the population that represents the whole group. Sampling is faster and cheaper than surveying an entire population.

A section of a whole group.

