Lesson 5.8 - Box & Whisker Diagrams
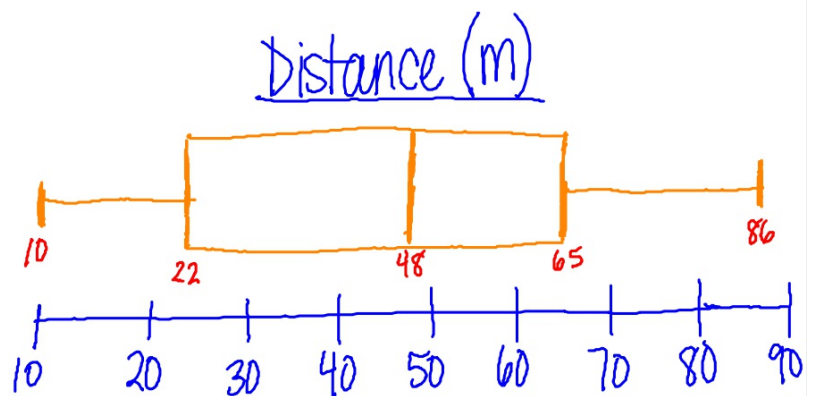
What is a box and whisker plot?

Min
Value

Q1

Median
Q2

Q3

Max
Value
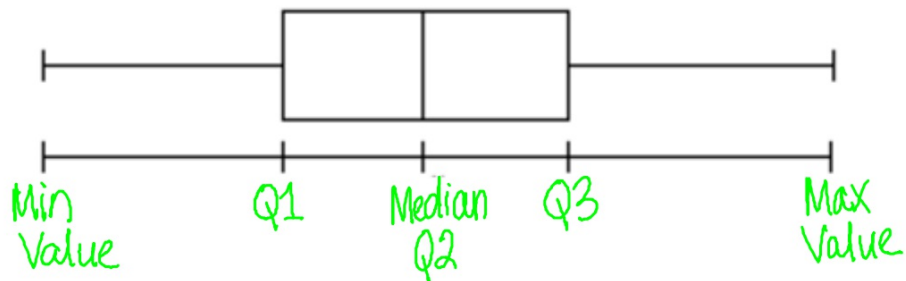
EXAMPLE #1

Draw the box and whisker diagram by hand.

Minimum distance (m): 10
Lower Quartile: 22
Median: 48
Upper Quartile: 65
Maximum distance: 86

Distance (m)

10   22   48   65   86

10   20   30   40   50   60   70   80   90

EXAMPLE #2

As part of her project, Cécile counts the number of words in the sentences of a newspaper. The box and whisker diagram for her data is shown below.
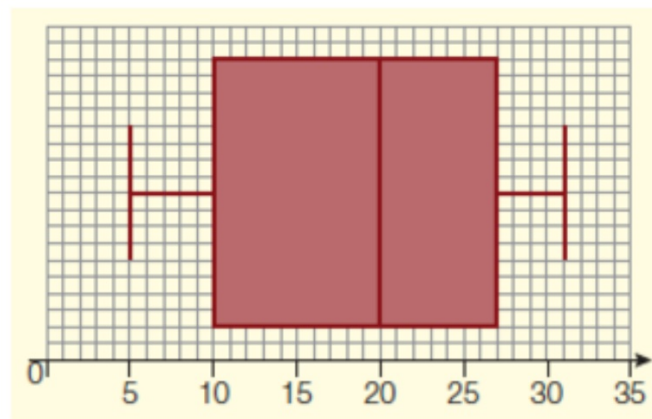
Use it to write down:

a) the maximum and minimum number of words in a sentence

The minimum amount of words is 5 + the maximum is 31.

b) the median number of words in the newspaper sentences

20

c) the upper quartile (Q3) and the lower quartile (Q1).

Q3 = 27 + Q1 = 10

EXAMPLE #3

Every day at noon, Fingal records the temperature at his home near Sligo. The temperatures are expressed in degrees Celsius (°C) to the nearest degree. These are his results for July 2012.

21	13	17	16	20	12	15	22	14	20	22	14	16
12	13	12	18	21	15	15	13	12	21	22	16	15
22	21	21	18	14								

Use the data to:

a) make a frequency table

Temperature (°C)	Tally	Frequency
12	||||	4
13	|||	3
14	|||	3
15	||||	4
16	|||	3
17	|	1
18	||	2
19		0
20	||	2
21	|||||	5
22	||||	4
Total		31

b) find the five number summary using your calculator and draw a box and whisker plot by hand.

Min = 12
Q1 = 14
Med = 16
Q3 = 21
Max = 22