GRAPHICAL REPRESENTATION OF DATA SOME OTHER TECHNIQUES

STEM AND LEAF PLOT

How to Draw One:

Step 1: Put the **first digits** of each piece of data in **numerical order** down the left-hand side

Step 2: Go through each piece of data in turn and put the remaining digits in the proper row

Step 3: Re-draw the diagram putting the pieces of data in the **right order**

Step 4: Add a **key**

Following are the marks gained by 30 students in an statistics exam:

63 58 61 52 59 65 69 75 70 54 57 63 76 81 64

68 59 40 65 74 80 44 47 53 70 81 68 49 57 61

Write the tens figures in the left hand column of a diagram.

These are the ‘STEMS’

4	
5	
6	
7	
8	

Here are the marks gained by 30 students in an examination:

63 58 61 52 59 65 69 75 70 54 57 63 76 81 64

68 59 40 65 74 80 44 47 53 70 81 68 49 57 61

Go through the marks in turn and put in the units figures of each mark in the proper row. These are the 'LEAVES'

4	
5	8
6	3 1
7	
8	

Here are the marks gained by 30 students in an examination:

63 58 61 52 59 65 69 75 70 54 57 63 76 81 64

68 59 40 65 74 80 44 47 53 70 81 68 49 57 61

When all the marks are entered the diagram will look like this:

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

Rewrite the diagram so that the units figures in each row are in order:

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

Add a key:

5|2 = 52

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

Remember:

- Always put in a **Key**
- Always put your data in **Order**

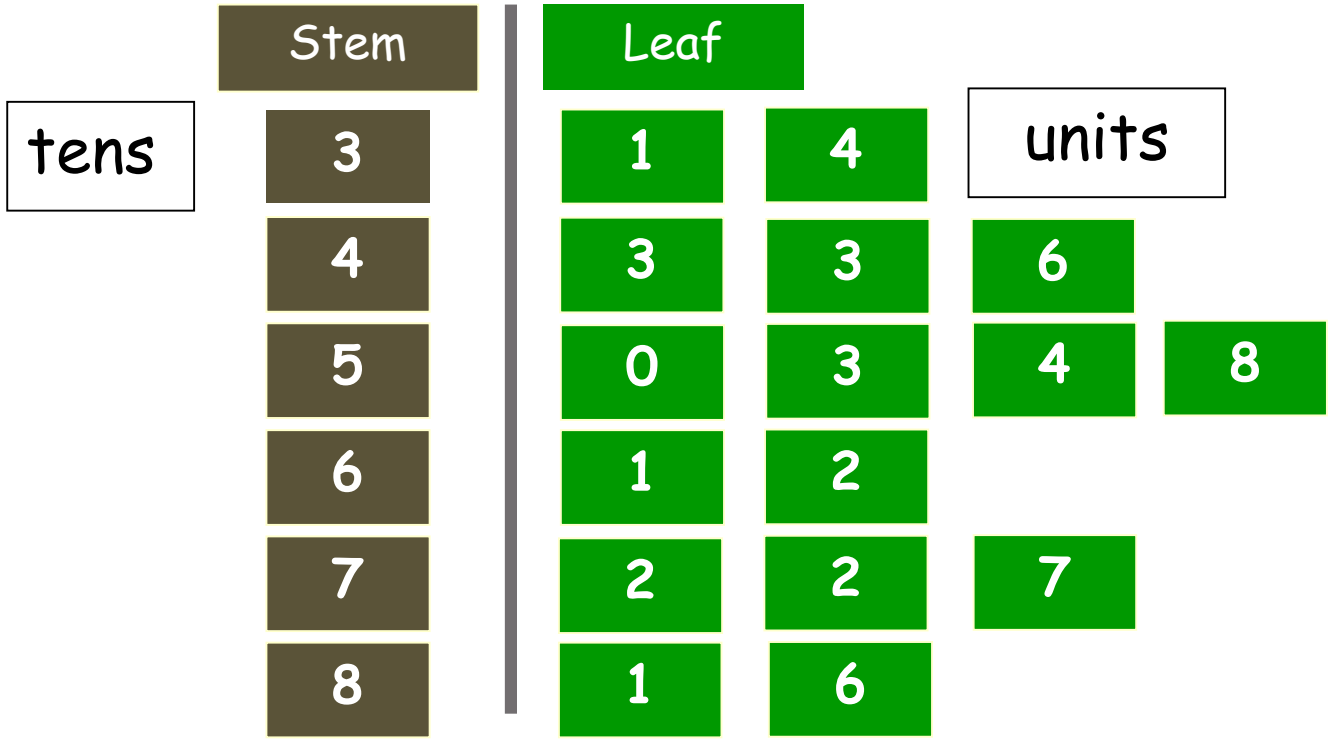
Range:
you can find out the Range from this diagram also, for that subtract the smallest number from the biggest.

Frequency Distribution:
we can construct frequency distribution table from this plot
Even we can find average and middle values from this diagram which we will learn later

The stem & leaf diagram below shows the masses in kg of some people in a lift.

(a): How many people were weighed?

(b): What is the range of the masses?



(a) 16 people.

(b) 86 – 31 = 55 kg