

Stem-and-Leaf Plots

Studying Nature

The Year 7A biology class is on an excursion trip to a local forest to collect nature samples. The data below shows the lengths of different leaf samples that were collected. Display this data in a stem-and-leaf plot. All measurements are in millimetres.

12	22	51	62	98	35	73	13	24	27
62	73	99	88	16	107	56	29	109	62

Stem	Leaf
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	



KEY 1|5 = 15mm

Questions

1. How many samples were above 2.5cm?	
2. How many samples were below 7.3cm?	
3. Determine the total number of samples collected.	

4. What fraction of the samples were 2cm to 4cm?	
5. Find the mode of the data.	
6. Find the median of the data. Round your answer to a whole number.	
7. Find the mean of the data. Round your answer to a whole number.	
8. Determine the minimum value, maximum value and range.	

Two-way stem-and-leaf plots

The Year 7C biology class has also collected a series of nature samples shown in the table below. Construct a back-to-back stem-and-leaf plot to compare the leaf samples from both classes.

49	11	72	38	62	55	13	99	104	58
67	81	26	65	24	81	47	33	97	59

Class 7A	Stem	Class 7C
	1	
	2	
	3	
	4	
	5	
	6	
	7	
	8	
	9	
	10	

Questions

1. Which class had more samples above 5.5cm?

2. Which class had a higher leaf length average?

3. The Year 7B class obtained a set of nature samples with an average leaf length of 5cm. Find the percentage difference between the average leaf lengths of class 7A and 7C data sets compared to this mean. *Note: Ensure your 7A and 7C averages are rounded to the nearest whole number.*