Section 3.8: Stem Leaf Diagrams

Part I: What is a Stem Leaf Diagram?

A STEM LEAF DIAGRAM IS A WAY TO WRITE SMALL AMOUNTS OF DATA IN AN EASY TO READ DIAGRAM.

3 | 8 = 380
STEM LEAF

7 | 2 = 7.2
STEM LEAF

2 | 9 = 2900
STEM LEAF

Part II: Examples of Stem Leaf Diagrams

1. Show a stem leaf diagram for the speed (in mph) of traffic on Main Street in Radford as recorded by a police officer on a Saturday afternoon.

~~21, 33, 35, 12, 36, 17, 39, 49, 33, 19, 26, 40, 8, 16, 11~~

KEY: 2 | 7 = 27 mph

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

25 mph SPEED LIMIT

2. Find the range, mean, median, and mode from the stem leaf diagram below.

Key: 4 | 8 = 4.8 kg

4 | 2 3 5

5 | 2 3

6 | 1 2 4

7 |

8 | 1 1 1 3 3

RANGE : MAX - MIN : 8.3kg - 4.2kg = 4.1kg

MEAN : $\frac{4.2+4.3+4.5+\ldots\ldots+8.3+8.3}{13} = 6.4\,kg$

MEDIAN : 6.2kg

MODE : 8.1 kg