

10.2 Stem-and-leaf Diagrams

Data values can be grouped and presented in a **stem-and-leaf diagram** which looks like a histogram. In such a diagram, the more significant digit(s) of each data value is extracted to form a stem, while the next significant digit of individual data values are displayed as leaves against the corresponding stems.

The most significant digit in a number is the first non-zero digit (reading from left to right).

Recall



Example 2 The marks of 20 students in a test are as follows:

62	58	71	66	34	65	60	73	88	54
52	69	84	65	77	52	71	80	79	61

Represent the data using a stem-and-leaf diagram.

Solution



To start a stem-and-leaf diagram, we have to determine the stem and leaf units.

In this example, since the data values are two-digit numbers, we take the tens digit of each value to be the stem and the units digit to be the leaf. For example, for the value 62, 6 is the stem and 2 is the leaf.

We arrange the stems in ascending order in a vertical column, including intermediate stem values that are not present in the data. In this way, we can observe the distribution of the data.

Stem	Leaf
3	
4	
5	
6	
7	
8	

