A stem and leaf diagram is another way of organising numbers.
This diagram represents the numbers
45, 46, 46, 48, 50, 51, 59, and 63.
Note how the numbers in the leaf section are put in ascending order.

Stem	Leaf
4	5 6 6 8
5	0 1 9
6	3

A. Write all the numbers represented in each of the following stem and leaf diagrams.

1).

Stem	Leaf
2	1 3 6 9
3	0 4 4
4	5 5 6
5	3

2).

Stem	Leaf
0	2 6 8
1	3 4 5 8
2	1 2 4
3	0 5

3).

Stem	Leaf
9	0 6 7 9
10	3 7 9
11	3 8
12	2 3

4).

Stem	Leaf
12	1 6 8 8 9
13	0 7 9
14	2 2 2
15	0 8

5).

Stem	Leaf
18	3 6 7 7
19	0 2 9 9
20	1 5 8
21	2 3 3 5

6).

Stem	Leaf
54	9 9
55	0 2 4 5
56	1 2 7 7
57	3 8 9 9 9

7).

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

8).

Stem	Leaf
88	7
89	0 8 9
90	1 3 5 6 9
91	2 8

B. Draw a stem and leaf diagram for each of the following sets of data.

1). 72, 45, 55, 71, 40, 59, 65, 52, 43, 79, 47, 57.
2). 18, 9, 23, 37, 16, 33, 18, 29, 3, 7, 19, 21.
3). 88, 96, 74, 107, 78, 91, 100, 91, 74, 106, 97, 85.
4). 142, 157, 136, 149, 163, 139, 140, 158, 139, 151, 132, 148, 143.
5). 287, 310, 298, 306, 294, 283, 315, 300 289, 301, 294, 286, 291.
6). 35, 67, 43, 59, 51, 39, 60, 45, 55, 39, 48, 53, 40, 49.
7). 460, 478, 493, 451, 464, 486, 495, 482, 465, 473, 483, 472, 479, 484.
8). 724, 693, 706, 684, 714, 719, 700, 689, 699, 701, 714, 709, 695, 691, 708.
9). 345, 309, 333, 327, 314, 326, 340, 312, 305, 321, 337, 333, 341, 327, 339, 312.
10). 275, 312, 306, 294, 315, 287, 313, 301, 298, 281, 299, 304, 307, 312, 298, 271.

C. For each of the following stem and leaf diagrams find
      a).   the mode,   b).   the median,   c).   the mean,   d).   the range.

1).

Stem	Leaf
2	3 3 8 9
3	0 4 7
4	5 5 5
5	7

2).

Stem	Leaf
0	3 7 9
1	2 4 6 8
2	1 2 4 8
3	0 0

3).

Stem	Leaf
9	4 4 7 9
10	6 7 9
11	3 3
12	2 3

4).

Stem	Leaf
12	2 3 7 8 8
13	1 7 9
14	4 4 4
15	5 9

E. 1). a). Jenny records the heights (mm) of 19 seeds planted from Packet A after 2 weeks.
          27, 17, 43, 52, 0, 4, 15, 37, 28, 19, 14, 16, 37, 42, 51, 8, 22, 31, 19.
          i).   Put the information into a stem and leaf diagram.
          For Packet A find   ii).   the median,   iii).   the range.

     b). Jenny records the heights (mm) of 19 seeds planted from Packet B after 2 weeks.
          27, 19, 14, 41, 18, 24, 18, 9, 33, 27, 16, 19, 24, 25, 34, 12, 34, 22, 15.
          i).   Put the information into a stem and leaf diagram.
          For Packet B find   ii).   the median,   iii).   the range.

     c). Which packet do you think is the more successful ? (Give reasons).

Answers

A. 1).   21, 23, 26, 29, 30, 34, 34, 45, 45, 46, 53
     2).   2, 6, 8, 13, 14, 15, 18, 21, 22, 24, 30, 35
     3).   90, 96, 97, 99, 103, 107, 109, 113, 118, 122, 123
     4).   121, 126, 128, 128, 129, 130, 137, 139, 142, 142, 142, 150, 158
     5).   183, 186, 187, 187, 190, 192, 199, 199, 201, 205, 208, 212, 213, 213, 215
     6).   549, 549, 550, 552, 554, 555, 561, 562, 567, 567, 573, 578, 579, 579, 579
     7).   67, 73, 75, 76, 76, 79, 81, 83, 84, 84, 94, 96
     8).   887, 890, 898, 899, 901, 903, 905, 906, 909, 912, 918

B.

1).

Stem	Leaf
4	0 3 5 7
5	2 5 7 9
6	5
7	1 2 9

2).

Stem	Leaf
0	3 7 9
1	6 8 8 9
2	1 3 9
3	3 7

3).

Stem	Leaf
7	4 4 8
8	5 8
9	1 1 6 7
10	0 6 7

4).

Stem	Leaf
13	2 6 9 9
14	0 2 3 8 9
15	1 7 8
16	3

5).

Stem	Leaf
28	3 6 7 9
29	1 4 4 8
30	0 1 6
31	0 5

6).

Stem	Leaf
3	5 9 9
4	0 3 5 8 9
5	1 3 5 9
6	0 7

7).

Stem	Leaf
45	1
46	0 4 5
47	2 3 8 9
48	2 3 4 6
49	3 5

8).

Stem	Leaf
68	4 9
69	1 3 5 9
70	0 1 6 8 9
71	4 4 9
72	4

9).

Stem	Leaf
30	5 9
31	2 2 4
32	1 6 7 7
33	3 3 7 9
34	0 1 5

10).

Stem	Leaf
27	1 5
28	1 7
29	4 8 8 9
30	1 4 6 7
31	2 2 3 5

C.   Correct Stem and leaf diagram with these answers.

	a).	b).	c).	d).
1).	45	34	36	34
2).	30	18	18	27
3).	None	17	107	29
4).	144	137	137	37

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E.   1).   a).   i).   Correct Stem and leaf diagram   ii).   22   iii).   52
            b).   i).   Correct Stem and leaf diagram   ii).   22   iii).   32
            c).   Same median, -Packet B more consistent growth