

STEM AND LEAF DIAGRAMS

1) Peter took a random sample of 40 people and obtained their ages. The results were:

21 18 37 51 36 26 81 15 7 53
 31 54 72 33 19 42 37 13 47 56
 57 16 28 49 27 38 9 33 24 71
 87 37 26 62 68 33 43 55 46 8

- (a) Present this information in the form of a stem and leaf diagram.
 (b) Find the median of these ages.

2) The masses (in kg) of 35 students are shown below:

54 47 68 51 36 65 67 56 73 52 41 62 57 53 44 60 68 59 50 64
 45 52 53 47 56 51 54 61 69 52 39 53 47 56 51

- (a) Draw a stem and leaf diagram to illustrate these masses.
 (b) Find the median of these ages.

3) The number of hours of sunshine recorded each day in June and November at a certain place is shown below:

June: 6.5 6.6 7.3 9.2 9.8 8.6 5.2 2.6 0.3 0.4
 11.3 12.1 12 11.1 9.8 7.4 6.4 5.8 1.3 1.2
 11.4 3.5 5.4 3.4 6.8 11.4 11.1 9.7 9.5 5.7

November: 0.8 0.7 1.2 1.6 2.3 0.0 0.0 0.0 0.0 1.9
 3.1 8.2 5.1 2.7 0.6 0.4 0.0 2.3 2.4 4.1
 5.2 2.7 1.0 0.0 0.8 1.7 5.4 4.9 3.2 0.9

- (a) Draw a back to back stem and leaf diagram of this data
 (b) Find the difference in the median hours of sunshine between June and November.

4) The stem and leaf diagram below is shown with three different interpretations and keys. For each one, state:

- (a) The value represented by the ringed figure.
 (b) The median value

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

- (i) Lengths of journeys. Key: 2 | 5 means 2.5km
 (ii) Age in years. Key: 2 | 5 means 25 years old
 (iii) Mass of components. Key: 2 | 5 means 0.25g

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Draw a back to back stem and leaf diagram of this data

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