

#1-4, find the mean, median, mode and range for the given data.

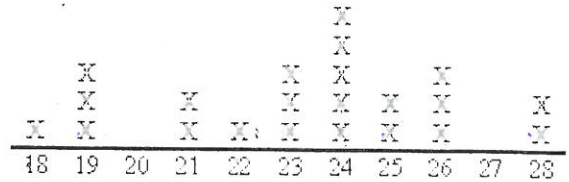
- ① The number of graffiti convictions in some east coast cities for the last 12 months is below.

Data - 14, 25, 23, 15, 16, 16, 11, 23, 12, 13, 24, 7

$n = 12$

Mean: 16.58
 Median: 15.5
 Mode: 16 & 23
 Range: 18

- ②



$n = 22$

Mean: 23.27
 Median: 24
 Mode: 24
 Range: 10

- ③ Student Heart Rates after doing 1 minute of jumping jacks

Stem	Leaf
6	1
7	
8	4 6 8
9	2 9 9 9
10	
11	3 4
12	1 2 4 4 7 9
13	8
14	4 7 8
15	1

Key: 6 | 1 = 61

$n = 21$

Mean: 114.76
 Median: 121
 Mode: 99
 Range: 90

- ④ The number of Facebook "Friends" for 7 adults is below.

Data: 12, 15, 3, 10, 25, 1000, 12

Mean: 153.86
 Median: 12
 Mode: 12
 Range: 997

- ⑤ Kyle has been practicing his bench press. So far he has pressed 150 lbs, 175, 180 and 156 lbs. How much will he need to lift the next time he practices in order to have an average of 167 lbs?

$$\frac{150 + 175 + 180 + 156 + x}{5} = 167$$

174 lbs

- ⑥ Look at this set of 7 numbers:

5 9 8 2 6 3 1

1, 2, 3, 5, 6, 8, 9

1 2 3 3 5 8 9

How would the median change if the number 3 replaced the number 6 in the set?

- increase
 decrease from 5 to 3
 no change

7) Look at this set of 8 numbers:

39 75 55 70 25 89 25 70

How would the mean change if the number 56 were added to the set?

- increase
- decrease
- no change

mean is 56.

56 vs. 56

8) Look at this set of 10 numbers:

6 9 1 4 8 8 8 6 1 8

How would the range change if the number 8 replaced the number 9 in the set?

- increase
- decrease
- no change

9 - 1 = 8
8 - 1 = 7

by 1

9) Look at this set of 5 numbers:

34 30 40 30 37

By how much would the median decrease if the number 23 replaced one of the 30's in the set?

30, 30, 37, 37, 40

no change

10) Look at this set of 5 numbers:

2 5 7 4 7

2, 4, 5, 7, 7 $\bar{x} = 5$
2, 2, 4, 5, 7 $\bar{x} = 4$

By how much would the mean decrease if the number 2 replaced one of the 7's in the set?

decrease 1

11) Use the data a right. Provide a number that would perform each of these tasks:

- a. An additional number that would decrease the mean.
any # less than 83.4
- b. An additional number that would leave the median the same.
84
- c. Replace 65 with a number that would decrease the range.

65 < ~~65~~ ≤ 70
65 < number ≤ 70

