

1. To find the **median** of a data set, put the data in order. Count from either end until you reach the middle.

2 3 **6** 7 11

The median is 6.

2 3 **7 9** 11 15

The median is half way between 7 and 9.
The median is 8.

Circle the middle number or numbers. Find the median.

- a) 2 4 6 7 8 b) 2 3 3 8 c) 7 9 13 14 26 d) 3 4 6 10 11 17

2. Find the mean and the median (and the ranges below and above) of the sets of data.

a) 2 2 3 3 4 16

Median: _____ Mean: _____

Range below the median: _____

Range above the median: _____

Range below the mean: _____

Range above the mean: _____

b) 1 16 15 2 21

Median: _____ Mean: _____

Range below the median: _____

Range above the median: _____

Range below the mean: _____

Range above the mean: _____

c) 2 1 4 6 7

Median: _____ Mean: _____

Range below the median: _____

Range above the median: _____

Range below the mean: _____

Range above the mean: _____

3. Find the mean and the median of the data sets.

a) 2 3 4 5 6

Median: _____ Mean: _____

b) 5 6 9 11 12

Median: _____ Mean: _____

c) 1 2 13 19 7 9

Median: _____ Mean: _____

Change one value in the set to make the mean larger than the median.

Median: _____ Mean: _____

Median: _____ Mean: _____

Median: _____ Mean: _____

Change one value in the set to make the mean larger than the median.

Median: _____ Mean: _____

Median: _____ Mean: _____

Median: _____ Mean: _____



4. Describe the data in each set in Question 2. Is it spread out in the same way above and below the median?

5. Order the numbers in each set in Question 2 c). Draw a picture of block towers for each set. Mark the mean and the median.



Answer the following questions in your notebook.

1. The class marks on a test were:

75	77	69	75	90	75	73	65	68	8
65	73	71	75	70	95	97	65	72	86

- a) Create a stem and leaf plot for the data.
- b) The **mode** of a data set is the value that occurs most often.
Find the range, mode, median, and mean of the data.
Which value is hardest to read from the stem and leaf plot? Explain.
- c) Describe the data. Is it spread out more...
 - i) above or below the mean?
 - ii) above or below the median?
- d) Tom's mark was 75.
Which of the following statements that he told his parents were true?
Explain using mean, mode, median or range.
 - i) I did better than half of the class!
 - ii) My grade is higher than the average!
 - iii) A lot of students had the same grade as me.
 - iv) Only 6 students did better than me!
 - v) 75 is the most common mark.



What do you think of Tom's mark? Discuss.

2. Can you add one positive number to the set 12, 14, 16 so that the new set has ...

Median:	10?	13?	14?	15?	20?
Mean:	10?	14?	20?		
Mode:	10?	12?	14?	20?	

3. Ron counted the number of floors of the buildings in his block:

5, 3, 3, 1, 13

- a) Find the mean, median and modes of the set of data.
 - b) The five story building is replaced by a skyscraper of 50 floors.
Find the mean, median and the mode of the new data set.
 - c) The number 50 is much greater than others. (It is called an **outlier**).
Which value changed the most when you added the outlier, the mean, or the median?
4. Find a set of data, not all values equal, so that the range below the median is 0.
Find the mean and the mode.