

# 4.2 Data Distributions

## ALGEBRA

Write your questions here!



Data Distribution: \_\_\_\_\_

Dotplots \_\_\_\_\_

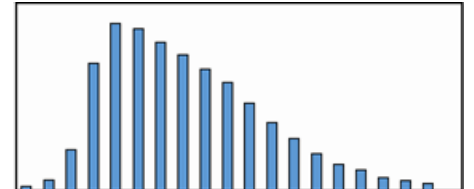
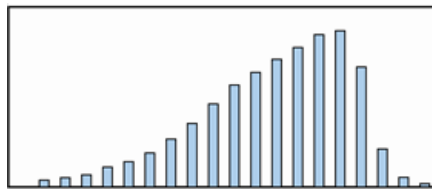
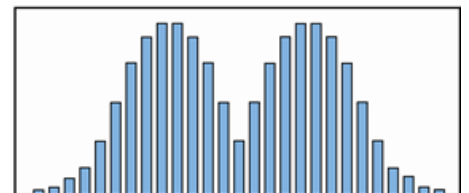
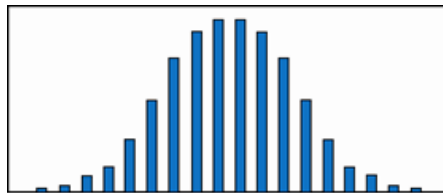
Histograms \_\_\_\_\_



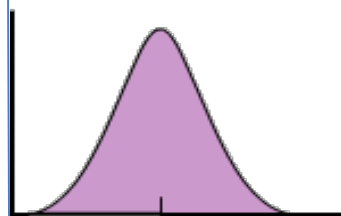
Find the **mean** number of siblings:

Find the **median** number of siblings:

Types of distributions:



**The mean on the move:** Compare the mean vs. median of a skewed data set.



Mean = Median



Median Mean



Mean Median

For skewed data, it is better to use the \_\_\_\_\_, rather than the \_\_\_\_\_, to describe the center of the data.

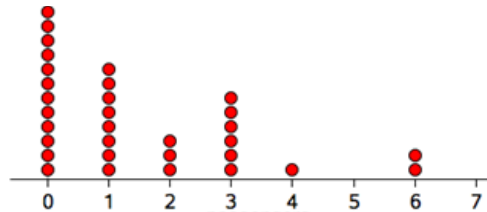
Tell whether the following distributions are more likely to be skewed left, symmetrical or skewed right:

I. Age of death in a city

II. Foot Size of 30 year old women

Estimate the mean and median from the graph:

III.



IV.



**Stemplots:** the stem repeats its value and each “leaf” represents a data point

**Stemplot of ages in church choir**

```

1 | 5 5 6
2 | 0 3 3 4 6 6 8
3 | 1 4 6
4 | 3 3
    
```

**Key:**

**3|1 represents 31 yrs old**

**Length of worms caught (cm)**

```

3 | 0
4 | 5
5 |
6 | 2
7 | 1 7
8 | 2 4 4 5
9 | 0 1 2 2 3 5 5 6 9
10| 0 0 0
    
```

**Key:**

**6|2 represents 6.2 cm**

**Outlier:** \_\_\_\_\_

Explain the effect an outlier would have on the following:

- I. Mean
- II. Median
- III. Standard Deviation

**SUMMARY:**

Now, summarize your notes here!