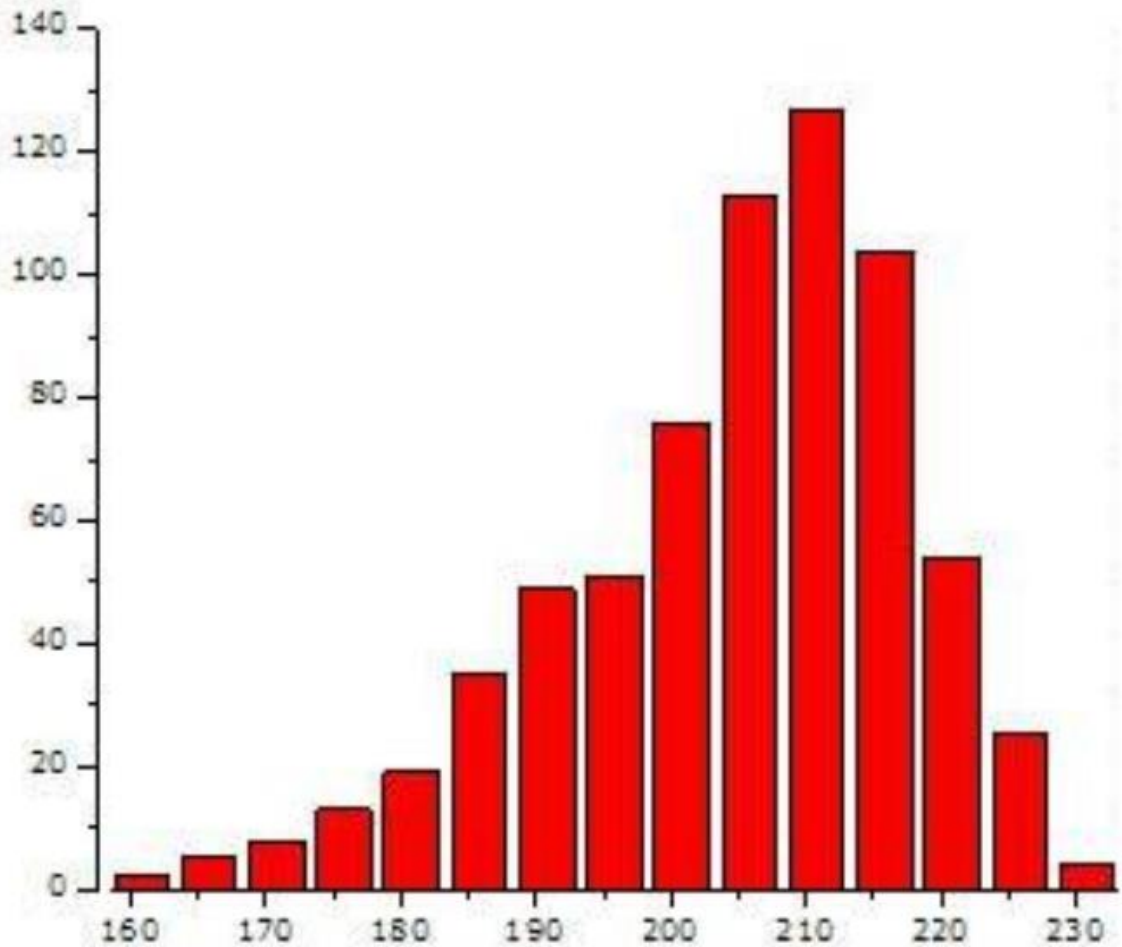


Date: _____

Learning Goal

a) What type of distribution is this an example of?

b) What is the mode of this data?



What's the Story?

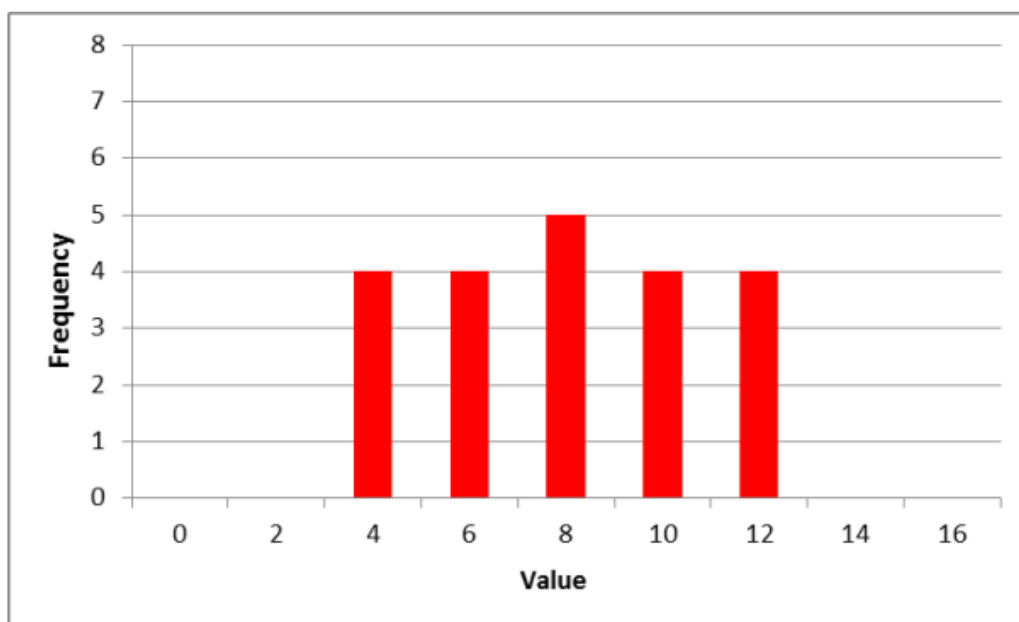
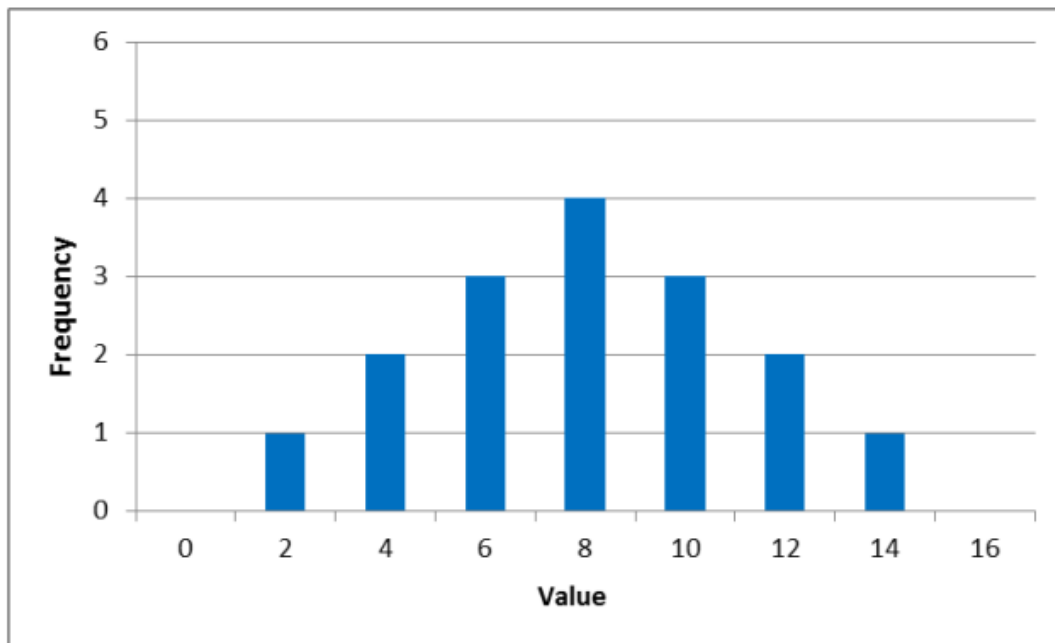
Calculate the mean, median and mode of each data set.

2, 4, 4, 6, 6, 6, 8, 8, 8, 8, 10, 10,
10, 12, 12, 14

4, 4, 4, 4, 6, 6, 6, 6, 8, 8, 8, 8, 8,
10, 10, 10, 10, 12, 12, 12, 12

What's the story?

If these two sets of data represented the time (in min.) that it took students to get to school at **Beechgrove** and **GPS**, what could we conclude?



Measures of Spread

1. Range

- We have already seen this.

- The range is found by subtracting the

_____ in our data

set from the _____.

0, 2, 2, 4, 4, 6, 6, 6, 8, 8, 8, 8,
10, 10, 10, 12, 12, 14, 14, 16

4, 4, 4, 6, 6, 6, 8, 8, 8, 10, 10, 10,
12, 12, 12

Measures of Spread

2. Standard Deviation (σ)

- This is new!
- Standard deviation is the best choice for measuring the spread in any data set.
- It's a little complicated to calculate...

Measures of Spread

2. Standard Deviation (σ)

Steps to Calculate Standard Deviation

1. Find the difference between _____ value and the _____.
2. _____ each difference.
3. _____ up all of the _____ differences.
4. _____ this number by the _____ number of entries.
5. Take the _____ of this answer.

Measures of Spread

2. Standard Deviation (σ)

Find the Standard Deviation of the data set below:

8, 12, 14, 6, 19, 22

1. Find the difference between each value and the mean.
2. Square each difference.
3. Add up all of the squared differences.

<i>value</i> (\bar{x})	$\bar{x} - \text{mean}$	$(\bar{x} - \text{mean})^2$
Total		

Measures of Spread

2. Standard Deviation (σ)

Find the Standard Deviation of the data set below:

8, 12, 14, 6, 19, 22

1. Find the difference between each value and the mean.
2. Square each difference.
3. Add up all of the squared differences.
4. Divide this number by the number of entries.

5. Take the square root of this answer.

Measures of Spread

2. Standard Deviation (σ)

On it's own, Standard Deviation doesn't tell us much. **BUT**, Standard Deviation is very useful for comparing

two _____...