Part 1: Comparing Data

How many hours of sleep did you get last night (round to the nearest half hour)?

In what ways could we compare these groups of data? How?

Let's first look at the data in a **dot plot, which is a diagram that uses a number line and x's to show frequency.**

By looking at the data in these diagrams, are there any generalizations you can make?

Are there any specific conclusions you can draw?

What could we do with each group of data in order to truly compare it?

Part 2: Measures of Center

Data can be described and summarized using different _____

_____

Commonly used measures of center:

- **The mean**

- **The median**

NFL	Steps	MLB
	Mean: 1. 2. 3.	
	Median: 1. 2. 3.	

Compare the measures of center between the amount of hours of sleep for girls and boys.

Part 3: Measures of Spread

Data can also be described and summarized using different _____

_____

Standard Deviation: _____

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STANDARD DEVIATION: Girls			Steps
Mean:			1.
Data Value, *x*	Deviation from mean *(x-mean)*	Square the deviation	2.
			3.
			4.
			5.
			6.
			7.
		Sum:	
		Divide:	
		Square Root:	

Boys Example: On your own...	
Mean: *Find the standard deviation:*	*Find the Range:* *Find the Inter-Quartile Range:*

Data Value, x	Deviation from mean (x-mean)	Square the deviation
		Sum:
		Divide:
		Square Root:

Standard Deviation:

	IQR	Range
Girls		
Boys		

Compare the measures of variation between the amount of hours of sleep that girls and boys get.

More measures of spread...

While standard deviation uses the mean to describe how spread out a group of data is from the mean, the spread of data can be described by comparing it to the median.

- _____

  _____

- _____

  _____

INTERQUARTILE RANGE: Girls	Steps
	1.
	2.
	3.
	4.
	5.

Why is the IQR less than the range?

Where is quartile 2 (Q2)?