

# Means, Modes and Medians Worksheet

1. Collect data using LEGO setup. Run several trials to make sure that the data you are getting is not constant (that the sensor doesn't measure the distance to the floor and is pointed directly at the platform).
2. Once the data is collected, choose an arbitrary consecutive sample population of 5 data points and record it in the spreadsheet in Part A below. Determine the mean, median, and mode of the sample data.
3. Choose a consecutive sample population of 10 data points around the same points used for Part A and record it in the spreadsheet in a Part B below. Determine the mean, median, and mode of the sample data.

## Part A

1. Record below the 5 sample data points you've chosen

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2. Calculate the mean of the set of numbers above. Clearly indicate the formulas you are using.

3. Calculate the median of the set of numbers above

4. Calculate the mode of the set of numbers above. How many modes does your data have?

## Part B

1. Record below the 10 sample data points you've chosen

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2. Calculate the mean of the set of numbers above. Clearly indicate the formulas you are using.

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

3. Calculate the median of the set of numbers above.
  
  
  
  
  
  
  
  
  
  
4. Calculate the mode of the set of numbers above. How many modes does your data have?
  
  
  
  
  
  
  
  
  
  
5. Calculate the percent difference between the means obtained in Part A and B. Show work.
  
  
  
  
  
  
  
  
  
  
6. Calculate the percent error between measured mean value obtained in Part A and Part B. Assume that the average value obtained in Part B is our “Theoretical” average, and the average calculated in Part A is our “Experimental” average.