

## Introduction to Graphing Activity

**Purpose:** In this lab activity you will collect data using metric measurements, and organize your findings in several different types of graphs.

**Recall:** *Average Height* = (Sum of all heights/number of heights)

**Materials:** 1 meter stick, pen, worksheet, textbook

**Procedure:**

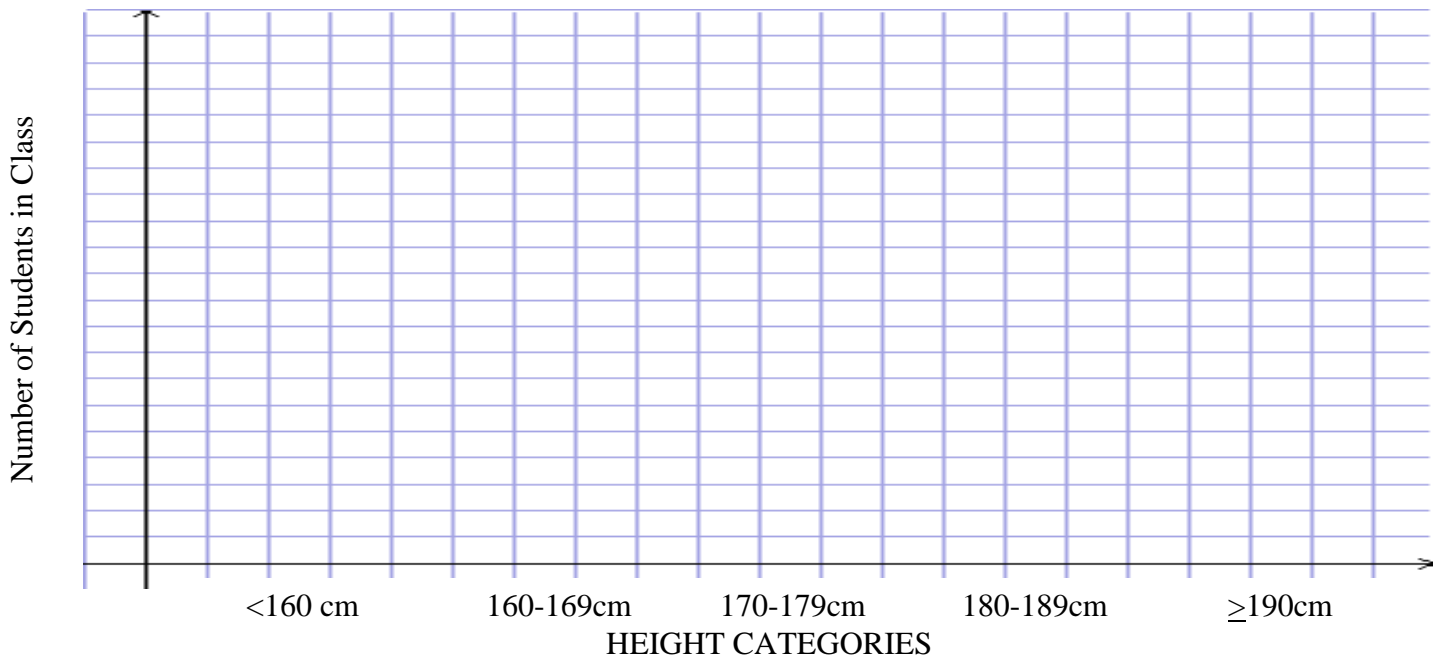
- Working in groups, use your meter stick to find the height of **each** group member. Have your partner stand against a wall and place a book flat upon their head. Now measure from the ground upward with your meter stick to find their height in **CENTIMETERS!**
- Record your group members' height (**cm**) in the table provided below:

Name:	Height: (cm)	Average Height for Group: (cm)

- Fill-in the following table with data collected from the entire class:

Height (cm)	Number of people this height
<160 cm ("less than" 160cm)	
160-169 cm	
170-179 cm	
180-189 cm	
≥190 cm ("greater than or equal to" 190 cm)	

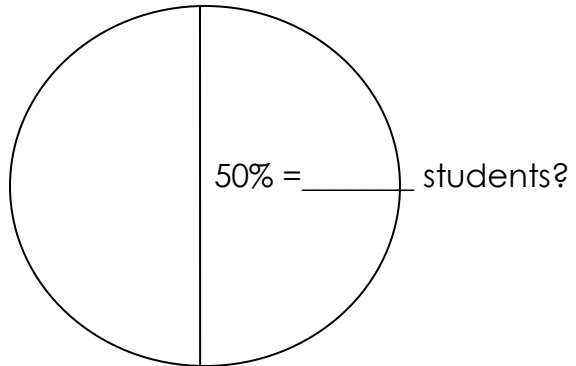
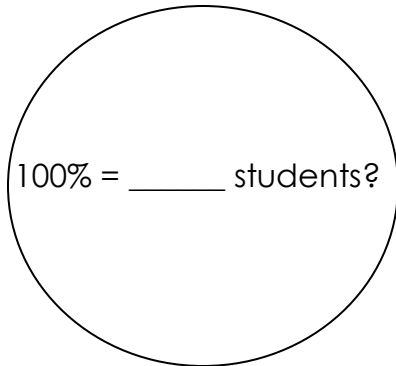
- Use the data collected in the table above to create a **BAR GRAPH** illustrating the number of students in each height **CATEGORY**.



5. In which height category are *most* students in our class?
6. In which height category are the *fewest* students?
7. Now create a **PIE CHART** that illustrates the breakdown of heights in our classroom as a **WHOLE**:

a. How many students are there in our class today? \_\_\_\_\_

b. The total number of students in class is equal to 100% of our Pie Chart. Illustrate this in the charts below:



c. To find out what percent of the class falls into each height category you will need to use the following equation:

$$\% \text{ of class} = \frac{\text{\# of students in category}}{\text{Total \# of students in class}} \times 100$$

d. Use the equation above to fill-out the following table:

Height Category:	% of class:
<160 cm	
160-169 cm	
170-179 cm	
180-189 cm	
≥190 cm	
TOTAL Percent:	100 %

e. Use the information from the table above to draw a PIE CHART that shows the percent breakdown for each height category in our classroom as a whole:

