

Name: _____

Date: _____

Period: _____

Let's Graph It

PURPOSE

To determine the conversion factor between cm and inches.

INTRODUCTION

We Live in a world in which measuring is a process we take for granted. Not only do we measure lengths, masses, accelerations, and voltages, but we even measure intelligence, learning, and consistency of observation. Measuring uses a combination of our senses and certain instruments to make precise observations. These measurements are not absolute. There can be some variation in measurement due to the measuring device, who did the measuring, room temperature, the humidity, and various others. To reduce this variation, many measurements can be made and compared to each other.

PROCEDURE

Measure each student's height in cm and inches. Record this on an overhead transparency. On a piece of graph paper construct a graph to display your data. Plot the inches on the X-axis and cm on the Y-axis. Your graph must contain ALL of the following: TITLE, LEGENDS, SCALES, AND A BEST-FIT LINE.

QUESTIONS

- Using your graph, determine the corresponding measure for each value given.
 - 75 inches _____ cm
 - 160 cm _____ inches
 - 188 cm _____ inches
 - 66 inches _____ cm
- Determine the slope of the best-fit line on your graph.
- What does the slope of the line represent?
- Using the slope you found in problem #2, convert the following measurements into the corresponding units.
 - 75 inches _____ cm
 - 160 cm _____ inches
 - 188 cm _____ inches
 - 66 inches _____ cm

Height Comparison Rubric

5	Conversion factor identified. Slope Correctly calculated. Graph was neat and has title, correct scale, correct units and Labels, Best fit line drawn correctly. Questions answered correctly
4	Conversion factor identified. Needed help calculating slope. Graph was not neat. Graph has title, correct scale, correct units and labels. Best fit line drawn correctly. Questions answered correctly.
3	Needed help identifying conversion factor and calculating slope. Graph was not neat. Graph has title, correct scale, correct units and labels. Best fit line not there. Questions answered correctly.
2	Needed help identifying conversion factor and calculating slope. Graph was attempted. Questions were answered.
1	No conversion factor identified. Slope was not calculated. Graph was attempted. Questions were attempted.
0	No attempt was made.