

Name: _____ Per: _____ Date: _____

Data Tables and Graphing: Height versus Reach

Part 1. Create a data table to display student height and their reach. The manipulated variable will be student height. We will compare it to student reach so that will be the responding variable.

(height: Measure from the top of your head to the bottom of your feet with your shoes off.)

(reach: middle fingertip to middle fingertip with arms outstretched)

Title:

Part 2: Creating a graph of student data: On a separate sheet of graph paper make a graph that represents the information in your data table.

A) What type of graph should you create (pie chart, bar graph or line graph)? Explain.

B) What variable should you graph on the x-axis?

C) What variable should you graph on the y-axis?

Part 3. Interpreting your results:

D) Looking at the data on your graph, was there a relationship between a student's height and their reach? Explain the trend that you observed.

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Data Tables and Graphing: Height versus tibia and radius length

Part 1. Create a data table to display student height and length of tibia and length of radius to see if there is a common relationship for all humans. Once again, student height will be the manipulated variable and the tibia and radius length measurements will be the responding variables.

(tibia: ankle bone along outer side of the leg to just below the knee)

(radius: Rest your elbow on a desk with your hand in the air. Measure from the tip of the elbow to the wrist.)

Title:

Part 2: Creating a graph of student data: On a separate sheet of graph paper, plot student height versus tibia length. (make this line green and label) On the same graph plot student height versus radius length (make this line red and label).

A) Does there appear to be a mathematical relationship between height and tibia length? If yes, explain the relationship.

B) Does there appear to be a mathematical relationship between height and radius length? If yes, explain the relationship.

C) An archeologist is working at site and finds a 27cm long human radius. Give an estimate of the person's height.

Later in the day, the archeologist finds a human tibia that measures 46cm long. Give an estimate of the person's height.

Do you think both of the bones are from the same person? Explain.

