Forensic Analysis
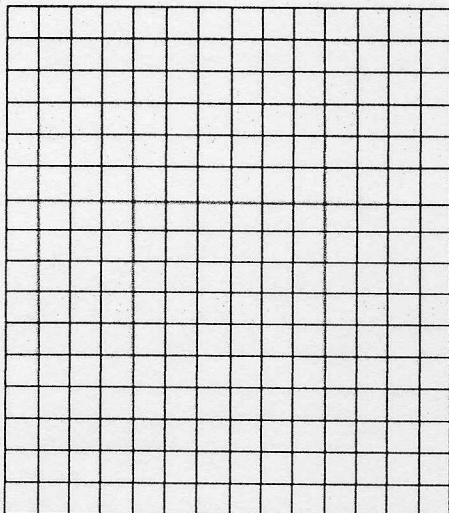
Date :

Anthropologists and forensic scientists use data to determine information about people. Scientists can make predictions about the height, age, and sex of the person they are examining by looking for relationships in large amounts of data.

1. Construct a graph of the length of the humerus bone vs. the length of the radius.

Length of Radius (cm) .	Length of Humerus (cm)
25	29.7
22	26.5
23.5	27.1
22.5	26
23	28
22.6	25.2
21.4	24
21.9	23.8
23.5	26.7
24.3	29
24	27

2. Circle the point on the graph that represents the data for a radius that is 21.9 cm long. How long is the humerus? _____.

3. Put a box around the point on the graph that represents the data for a humerus that is 27.1 cm long. How long is the radius? _____.

4. Describe the trend.

5. Describe the relationship: As the length of the radius gets longer, the humerus

    _____.

6. a) Draw a line of best fit.

    b) Use the line of best fit to predict the length of the humerus, if the radius is 24.5 cm long. Did you interpolate or extrapolate?

    c) Use the line of best fit to predict the length of the radius, if the humerus is 25 cm long. Did you interpolate or extrapolate?

7. Use two points **from your line of best fit** to calculate the *slope* of the line that you graphed in #1. For tips on how to do this, see the example below.
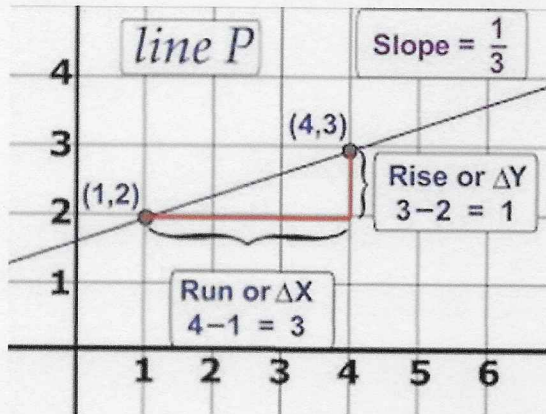
8. Explain what the slope of the line means about the length of humerus vs. the length of the radius.