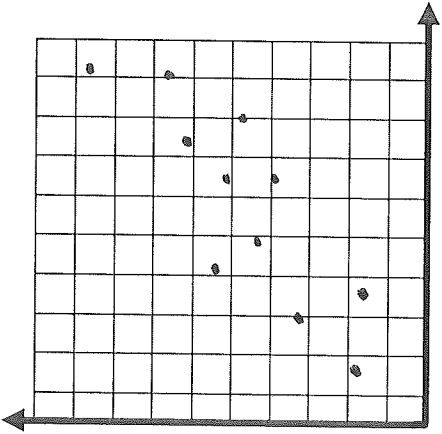
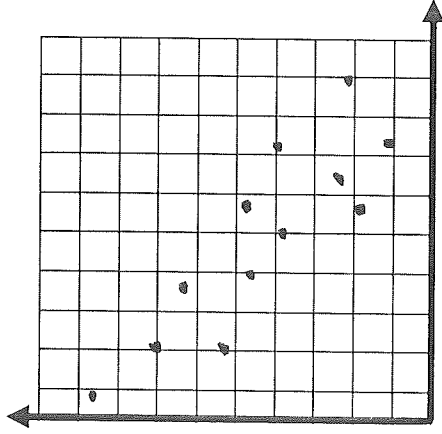
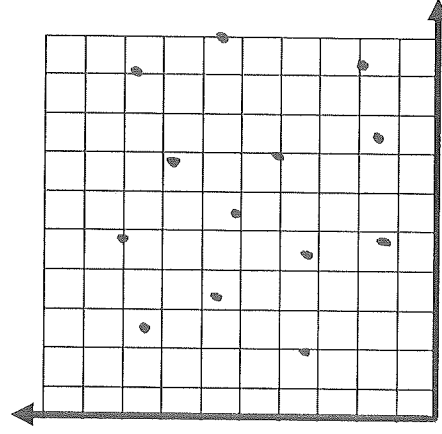


- a. Before you make the scatterplot, what kind of trend do you see?
- b. Identify the independent variable:
- c. Identify the dependent variable:
- d. Now make the scatterplot (label axes please).
- e. Plot a line of best fit, meaning draw a line that you think that fits most of the points.  
Identify the slope, y-intercept, and write the equation that fits it.
- f. Interpret in the context, the meaning of the slope and y-intercept.
- g. *Use your equation for the line of best fit to predict the height of the first ancestor.*
- h. *Use your equation for the line of best fit to predict the height of the second ancestor.*
- i. How accurate do you think your prediction is? Why?

- A scatterplot is a data display which shows the relationship (if any) between two variables.

What pattern could two plotted variables look like when plotted? A line.

Positive Correlation	Negative Correlation	No Correlation
 <ul style="list-style-type: none"> <li>• The trend makes a linear pattern with a positive slope</li> <li>• As x increases, y increases</li> </ul>	 <ul style="list-style-type: none"> <li>• The trend makes a linear pattern with a negative slope</li> <li>• As x increases, y decreases.</li> </ul>	 <ul style="list-style-type: none"> <li>• There doesn't seem to be a trend in the plotted points.</li> </ul>

Line of best fit: a line that is plotted that approximately lines up with most of your data, if data shows a strong relationship between the two variables.

The purpose of plotting a line of best fit is to be able to use the line to make predictions of any output given the input value.

To find the equation of a line of best fit:

1. Using a straight edge, draw a line that "fits" most of the data, meaning that most of the points are as close as they can be to that line.
2. Identify two ordered pairs that the line goes through.
3. Use those two points to find slope.
4. Use the slope and one of the ordered pairs in point-slope form.
5. Rewrite in function form, and be able to identify the slope and y-intercept in that form.