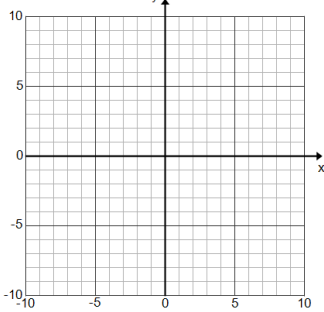


Name:

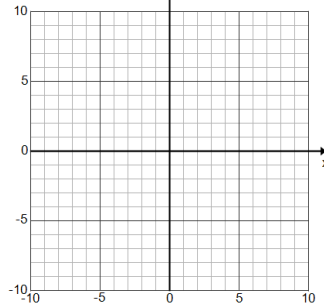
UNIT 4 PART II
STUDY GUIDE

1. Sketch a scatterplot of data showing the following:

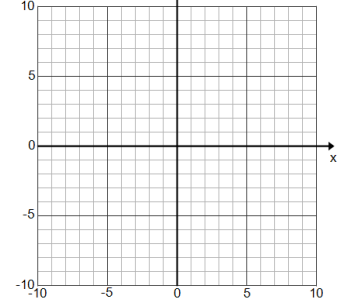
a. Positive Correlation



b. Negative Correlation



c. No Correlation



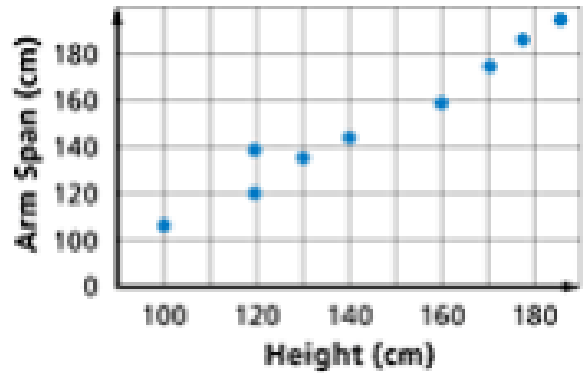
2. The scatterplot shows the height (cm) of an Individual compared to their arm span (cm).

a. Describe the correlation.

b. If a person is 160 cm, what is their arm span in cm?

c. If a person has an arm span of 120 cm, what is their height in cm?

d. What are the independent and dependent variables?



3. Draw a line of best fit for the scatterplot below.

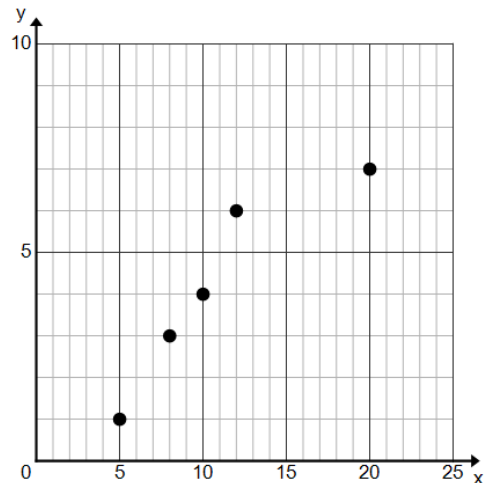
The data represents the number of minutes spent in class and the number of copies handed out to each student.

a. What type of correlation is this?

b. Label the axes.

c. Draw a line of best fit.

d. What is the slope of your line of best fit?



4. The data below represents the number of minutes spent in class and the number of students who ask to leave the room.

a. What type of correlation is this?

b. What are the independent and dependent variables?

c. Label the axes and draw a line of best fit.

d. Choose two points on your line of best fit and circle them on your graph.

Points _____ and _____

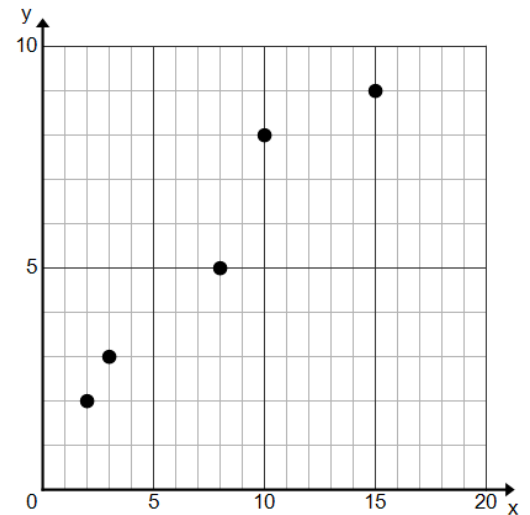
e. Use your points to write an equation in slope-intercept form. (You can first write it in point-slope form and then convert)

f. What is the meaning of your y-intercept?

g. What does the slope represent?

h. How many students will leave the room 12 minutes into the class period?

i. How many minutes are spent in the class period if 7 students have left?



5. The data below shows hours spent researching the stock market per week and the percent gain for an investor. Find an equation of the line of best fit for gain with respect to hours of study. Label your axes and make a scatter plot.

Hours	6	8	10	12	14	16	18
% Gain	25	31.5	40.5	46	52.5	60.5	67



a) Independent variable: # of hrs.

Dependent variable: % gain

b) Describe the correlation in words.

As the # of hrs. increase, the % gain increases.

c) Use your calculator to write the equation of the L.O.B.F:

$$y = 3.5x + 4.14$$



d) Explain the meaning of the y-intercept.

The stock was worth 4.14% when the investor started researching.

e) Explain the meaning of the slope.

The investor gains 3.5% every hour.

e) In 20 hours, what would be the percent gain?