Homework Week of Nov. 18

Calculate the slope given two points.
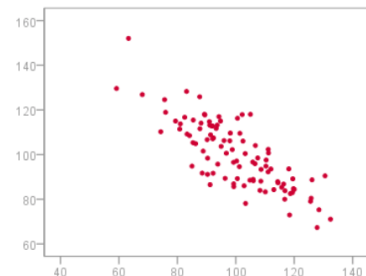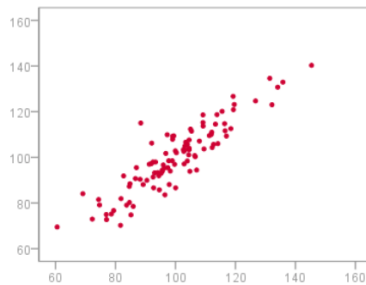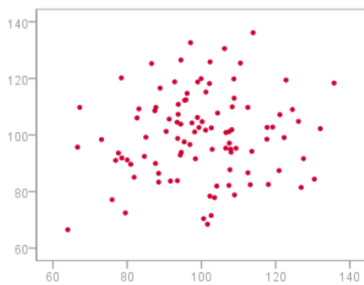
1.) $(15, 3)$ $(45, 6)$ 2.) $(12, 18)$ $(6, 3)$

Write an equation of a line given two points.

3.) $(7, 17)$ $(4, 11)$

Describe the correlation coefficient as being either positive, negative, or no correlation given the data below.

_____   _____   _____

4.) If the number of grams of fat in a cake increases as the number of calories increases, the two will have _____ correlation.

5.) If the number of pets owned does not depend on a person's age then a graph that represents this data will have _____ correlation.

The table below shows the percentage of females in the U.S. labor force at various times throughout history.

Years after 1900	Percentage of Women
50	29.6
60	33.4
70	38.1
80	42.5
90	45.3
100	52.0

6.) When plugged into a calculator the a value was found to be $a = .43$ and the b value was found to be $b = 7.56$ Find the line of best fit given that data.

_____

7.) The slope is _____. What is the meaning of the slope in the context of this problem?_____

_____

_____

8.) Use your equation to predict the number of women working in 2010 (be careful to enter the number of years since 1900 for x). _____

9.) Calculate the residuals in the chart below.

Years after 1900	Percentage of Women	Predicted Value	Residual Value	Over or Under Extimate
50	29.6			
60	33.4			
70	38.1			
80	42.5			
90	45.3			
100	52.0			

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