

Graded Homework Set 6 – Statistics Math 135 (6 problems) (Reference pages in red)

1. A physician wishes to know whether there is a relationship between a father's weight (in pounds) and his newborn son's weight (in pounds). The data is given below:

x = Father's weight	176	160	187	210	196	142	205	215
y = Son's weight	6.6	8.2	9.2	7.1	8.8	9.3	7.4	8.6

Draw a scatter plot and comment on the relationship between father's weight and son's weight.

2. A researcher wishes to determine whether a person's age is related to the number of hours he or she jogs per week. The data for the sample is shown below:

x = Age	34	22	48	56	62
y = hour of jogging	5.5	7	3.5	3	1

Draw a scatter plot and comment on the relationship between age and number of hours spent jogging.

(see section 4.1)

A store manager wishes to find out whether there is a relationship between the age of her employees and the number of sick days they take each year. The data for the sample is shown below:

x = age	18	26	39	48	53	58
y = sick days	16	12	9	5	6	2

3. Draw a scatter plot for this set of data. (see page 195).
4. Compute the correlation coefficient for this set of data. (See page 198)
5. Find the least squares regression line for the data. (See pages 214, 215 and 216)
6. Using the least squares regression line, predict the number of sick days a 30-year-old employee might take.