Algebra 2   Hwk #16   Sec 5-1, 2-4   Fall 2015

For each set of data do the following:

a) Make a scatter plot using technology. On the back of this paper sketch the scatter plot and label the axes.

b) State if the data would be best fit with a Linear Regression or a Quadratic Regression.

c) Write down the regression equation. Round to the nearest hundredth.

d) Use the equation to answer the given question.

1. Wave Length vs. Wave Speed
of deep water ocean waves.

Speed (mph)	Fuel Economy (mpg)
15	22.3
20	25.5
35	28.8
60	30.2
60	28.8
70	25.3

b)

c)

d) What is the fuel economy if you drive 80 mph?

2. Women's Shoe Sizes

US Size	European Size
1	31
3	34
5	36
7	39
9	41
11	44

b)

c)

d) What European Size Corresponds to a US size of 3?

3. Avg. daily energy requirements
for males.

Age (yrs)	Energy Requirement (calories)
1	1100
2	1300
5	1800
8	2200
11	2500
14	2800

b)

c)

d) How old is a boy if he requires 3200 calories?

4. Height of an object shot upwards
from an initial height of 50 feet with an initial velocity of 120 ft/s.

Time (sec)	Height (ft)
1	153
2	225
3	267
5	251
6	194

b)

c)

d) Find the height after 7.5 seconds.