

Name:

PIN:

MATH 1342
Quiz 11.2 and 11.5

A research group conducts the same experiment at three different elevations. They are trying to determine how two variables are related and if elevation affects the relationship. For each set of collected data, Find the equation of the Linear Least Squares Line (line of "best fit") and the correlation coefficient (both r^2 and r). Does there appear to be a strong positive correlation, a strong negative correlation or no correlation at each elevation?

(1) Sea level:

<i>variable #1</i>	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0
<i>variable #2</i>	5.2	5.0	4.9	5.0	4.4	4.3	4.1	3.8	3.7	3.2	3.0

(2) 3,000 feet:

<i>variable #1</i>	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0
<i>variable #2</i>	2.2	4.8	3.1	5.1	2.7	4.4	3.3	4.0	2.6	4.9	3.5

(3) 7,000 feet:

<i>variable #1</i>	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0
<i>variable #2</i>	2.1	2.3	2.6	2.7	2.9	3.4	3.4	3.7	4.0	4.2	4.5