

**Remember to show your thinking through your work.**

- 1) For each of the following datasets, enter the data into the calculator and find the **least-squares regression line, correlation coefficient, and coefficient of determination.**

a)

<b>x1</b>	<b>y1</b>
10	8.04
8	6.95
13	7.58
9	8.81
11	8.33
14	9.96
6	7.24
4	4.26
12	10.84
7	4.82
5	5.68

<type answer here>
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b)

<b>x2</b>	<b>y2</b>
10	9.14
8	8.14
13	8.74
9	8.77
11	9.26
14	8.1
6	6.13
4	3.1
12	9.13
7	7.26
5	4.74

<type answer here>

c)

<b>x3</b>	<b>y3</b>
10	7.46
8	6.77
13	12.74
9	7.11
11	7.81
14	8.84
6	6.08
4	5.39
12	8.15
7	6.42
5	5.73

<type answer here>

d)

<b>x4</b>	<b>y4</b>
8	6.58
8	5.76
8	7.71
8	8.84
8	8.47
8	7.04
8	5.25
19	12.5
8	5.56
8	7.91
8	6.89

<type answer here>

- 2) For each of the datasets above, construct the scatterplot. Given the regression lines and statistics about the correlation in combination with the scatterplots, describe what you have learned through these data sets.

<type answer here>

- 3) For each of the following datasets, describe in a sentence or two the transformation necessary to linearize the data. Be sure to convince me that you understand.

a)

x	y
1	0.7
2	1.3
3	1.8
4	2.1
5	2.3

<type answer here>

b)

x	y
1	1.2
2	7.4
3	28.1
4	61.8
5	130.2

<type answer here>

c)

x	y
3	1.4
7	1.9
9	2.1
14	2.4
22	2.8

<type answer here>

d)

x	y
10	111
25	602
35	1249
40	1574
75	5703

<type answer here>