Name: _____ Class: _____ Date: _____ ID: A

Lesson #6-2: Understanding Line of Best Fit and Applying Linear Regression (Reference: Lesson #45 in book)

Problem

1. **For each of the following problems, plot all of the given points on a coordinate plane and find the equation of a line of best fit using Linear Regression and then use that line of best fit to predict the results of the given questions at the end of each problem.**

1.

X	Y
1	5
2	3
2	6
3	8
3	10
4	4
4	7
6	7
6	9
6	11
7	8

EQUATION OF THE LINE OF BEST FIT:

Use the Equation of the LINE OF BEST FIT to predict the following coordinate points:

(9,)
(12,)
(, 1)
(, 13)

2.

X	Y
3	9
4	8
5	10
6	9
7	7
8	6
9	7
9	9
10	8
11	6
12	6

EQUATION OF THE LINE OF BEST FIT:

Use the Equation of the LINE OF BEST FIT to predict the following coordinate points:

(15,)
(21,)
(, 1)
(, 15)

3.

X	Y
2	2
3	4
4	2
5	3
6	5
7	4
8	5
8	6
9	7
10	5
12	7

EQUATION OF THE LINE OF BEST FIT:

Use the Equation of the LINE OF BEST FIT to predict the following coordinate points:

(14,)
(20,)
(, 10)
(, 14)

4.

X	Y
2	6
2	9
3	11
4	2
4	7
5	5
5	7
5	10
6	2
7	1
7	5

EQUATION OF THE LINE OF BEST FIT:

Use the Equation of the LINE OF BEST FIT to predict the following coordinate points:

(10,)
(12,)
(, 17)
(, 9)

5.

X	Y
2	7
2	10
3	5
3	9
4	2
4	6
5	6
5	8
6	1
6	2
7	4

EQUATION OF THE LINE OF BEST FIT:

Use the Equation of the LINE OF BEST FIT to predict the following coordinate points:

(10,)
(14,)
(, 18)
(, 22)

6.

X	Y
2	1
3	3
3	4
5	3
5	6
8	7
9	7
10	7
11	10
12	8
12	9

EQUATION OF THE LINE OF BEST FIT:

Use the Equation of the LINE OF BEST FIT to predict the following coordinate points:

(6,)
(18,)
(, 5)
(, 15)