Homework – Scatter Diagrams and Correlation

1. Find the scatter diagram for the following data:

x	y
1	2
2	5
3	12
4	21
5	33
6	45

Is it a positive or negative association?

2. Find the scatter diagram for the following data:

x	y
1	52
2	40
3	37
4	25
5	20
6	19

Is it a positive or negative association?

3. Given the following data:

x	y
1	7
2	12
3	15
4	16

Find the correlation coefficient (r) by hand.

4. Given the following data:

x	y
5	12
7	33
9	41
11	53
13	81

Find the correlation coefficient using technology.

5. Given the following data:

x	y
1	83
2	25
3	50
4	72
5	95

Find the correlation coefficient using technology

6. Test to see if there is a linear relation between x and y

x	y
1	12
2	23
3	41
4	80
5	92