

Scatter Plots & Correlation Homework

Name: _____

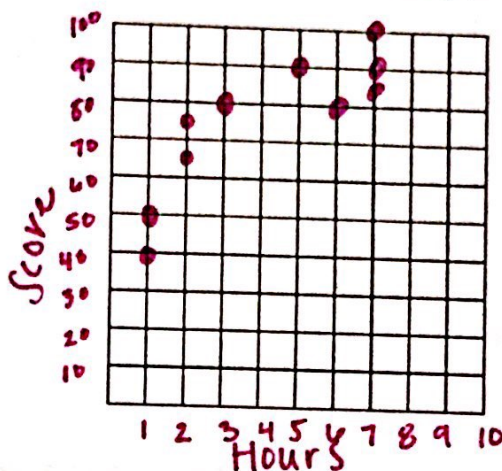
Date: _____

1. Make a scatter plot for each data set. Then find the correlation coefficient using your calculator.

a.

Study Hours	Regents Score
3	80
5	90
2	75
6	80
7	90
1	50
2	65
7	85
1	40
7	100

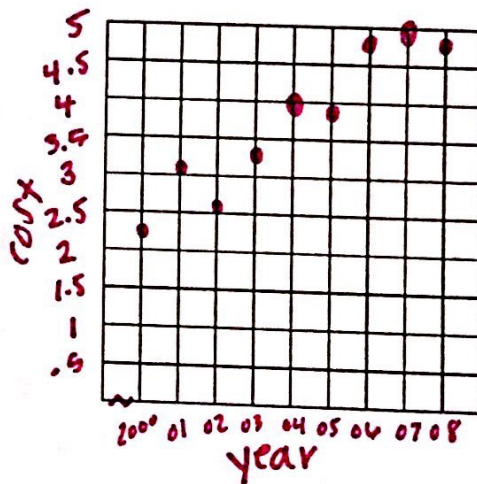
$r = .85$



b.

Years	Costs
2000	2.3
2001	3.1
2002	2.6
2003	3.3
2004	4.0
2005	3.9
2006	4.8
2007	5.0
2008	4.7

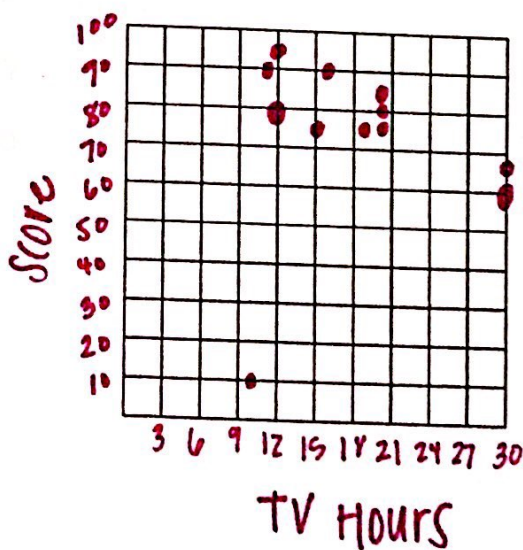
$r = .94$



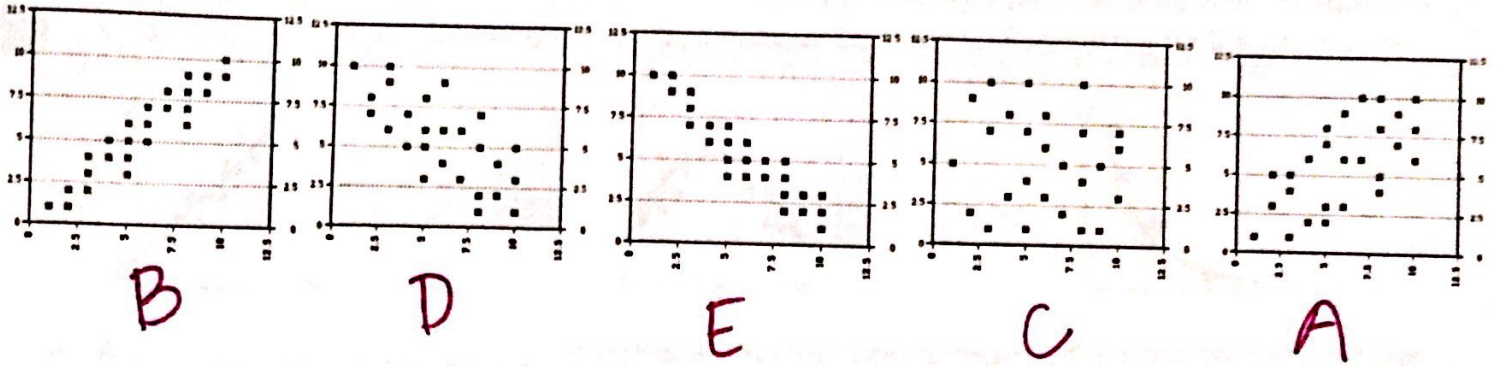
c.

TV Hrs/week	Test Score
30	60
12	80
30	65
20	85
10	10
20	78
15	75
12	95
15	75
11	90
16	90
20	80
19	75

$r = .24$



2. Match the correlation coefficient with each scatter plot.



a. $r = .45$

b. $r = .94$

c. $r = .07$

d. $r = -.39$

e. $r = -.89$

3. Decide whether each scenario has positive, negative, or no correlation?

- a. Education vs. Income positive
- b. Number of Pets a person has vs. Number of books a person has read NO correlation
- c. Number of days absent from school vs. Math average negative
- d. Test scores vs. Shoe Size no correlation
- e. Distance traveled vs. Amount of gas in the car negative
- f. Hours of studying vs. Grades Positive
- g. Hours in the mall vs. Amount of money spent Positive
- h. A person's height vs. Person's age Positive
- i. Person's height vs. How fast they drive NO correlation
- j. Temperature vs. Number of people wearing jackets negative