Time Frame: 50 minutes

Subject Matter: Scatter Plots and Correlation Coefficients TELL ME

Objective: TSWBAT answer the problems in test with at least 85% accuracy.

Standards: DA – 3.5 and 3.6

Materials: Calculators and Test paper

Presentation of Information:

Test in Scatter Plots and Correlation Coefficient

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: March 30, 2011

For numbers 1 - 2, construct a scatter plot and determine whether the relationship is positive, negative, or zero.



|  |  |  |
| --- | --- | --- |
| Subject | Age (x) | Pressure (y) |
| A | 45 | 128 |
| B | 50 | 120 |
| C | 55 | 135 |
| D | 60 | 143 |
| E | 70 | 141 |
| F | 80 | 152 |

|  |  |  |
| --- | --- | --- |
| Student | Number of Absences (x) | Final Grade (y) |
| A | 6 | 80 |
| B | 2 | 86 |
| C | 14 | 43 |
| D | 9 | 74 |
| E | 12 | 60 |
| F | 5 | 90 |
| G | 8 | 78 |

For numbers 3 – 4, compute the correlation coefficient of each data and classify whether the correlation is positive, negative, or zero.

1. Data obtained in a study on the number of hours that nine people exercise each week and the amount of milk (in ounces) each person consumes per week.

|  |  |  |
| --- | --- | --- |
| Subject | Hours (x) | Amount (y) |
| A | 3 | 48 |
| B | 0 | 8 |
| C | 2 | 32 |
| D | 5 | 64 |
| E | 8 | 10 |
| F | 5 | 32 |
| G | 10 | 56 |
| H | 2 | 72 |
| I | 1 | 48 |

1. A manager wishes to find out whether there is a relationship between the number of radio ads aired per week and the amount of sales (in thousands) of a product. The data of the sample is shown.

|  |  |
| --- | --- |
| No. of ads (x) | Sales (y) |
| 2 | 2 |
| 5 | 4 |
| 8 | 7 |
| 8 | 6 |
| 10 | 9 |
| 12 | 10 |