

NAME: _____

HW 10.4 – DAY 2

DATE: _____

ALGEBRA

ALL ANSWERS AND WORK MUST BE ON A SEPARATE SHEET OF PAPER!!!

1. At a family barbecue, the following amounts of burgers and soda were consumed.

| | Burgers | Cans of Soda |
|---------------|----------------|---------------------|
| Uncle Eric | 5 | 8 |
| Uncle Andrew | 4 | 10 |
| Aunt Wendy | 3 | 4 |
| Cousin Caryn | 2 | 6 |
| Aunt Courtney | 1 | 2 |

- Graph a scatterplot from the data.
 - Describe the correlation between the data.
 - Find the linear regression formula for the data (round to nearest tenth).
 - Describe the slope and y -intercept in the context of the problem.
 - Find the value of the correlation coefficient (to the nearest hundredth).
 - Graph the line of best fit.
2. A quiz was scaled from 0 to 6 points. The school psychologist measured the test anxiety of five students preparing for the test and recorded their test results.

| | Anxiety Score | Quiz Score |
|-----------|----------------------|-------------------|
| Student 1 | 1 | 1 |
| Student 2 | 2 | 4 |
| Student 3 | 3 | 3 |
| Student 4 | 4 | 4 |
| Student 5 | 5 | 1 |

- Graph a scatterplot from the data.
- Describe the correlation between the data.
- Find the linear regression formula for the data (round to nearest tenth).
- Describe the slope and y -intercept in the context of the problem.
- Find the value of the correlation coefficient (to the nearest hundredth).
- Graph the line of best fit.

3. Student IQ scores were measured against their creativity scores.

| | IQ | Creativity |
|-----------|-----------|-------------------|
| Student 1 | 140 | 130 |
| Student 2 | 130 | 125 |
| Student 3 | 130 | 140 |
| Student 4 | 125 | 125 |
| Student 5 | 110 | 115 |

- Graph a scatterplot from the data.
- Describe the correlation between the data.
- Find the linear regression formula for the data (round to nearest tenth).
- Describe the slope and y -intercept in the context of the problem.
- Find the value of the correlation coefficient (to the nearest hundredth).
- Graph the line of best fit.

4. The data at right shows a study comparing the amount of soda spending to candy spending for a small group of people in one week.

| Soda Spending | Candy Spending |
|----------------------|-----------------------|
| \$ 4.03 | \$ 6.47 |
| \$ 3.76 | \$ 6.13 |
| \$ 3.77 | \$ 6.19 |
| \$ 3.34 | \$ 4.89 |
| \$ 3.47 | \$ 5.63 |
| \$ 2.92 | \$ 4.52 |
| \$ 3.20 | \$ 5.89 |
| \$ 2.71 | \$ 4.79 |
| \$ 3.53 | \$ 5.27 |
| \$ 4.51 | \$ 6.08 |
| \$ 4.56 | \$ 4.02 |

- Graph a scatterplot from the data.
- Describe the correlation between the data.
- Find the linear regression formula for the data (round to nearest tenth).
- Describe the slope and y -intercept in the context of the problem.
- Find the value of the correlation coefficient (to the nearest hundredth).
- Graph the line of best fit.