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| The table gives the number of hours spent studying for a Biology exam. | |
| a) Draw a scatter plot of the data using the checklist  **Checklist:**   * Title * Labeled axes * X-axis-scale of 1 * Y-axis scale of 10   b. Draw a best fit line.  Be sure to do the following:   * Use a box around data * Use a straight edge * Extend the line beyond data  |  |  | | --- | --- | | Study Hours vs Grade | | | Study Hours | Grade | | 3 | 90 | | 2 | 76 | | 5 | 92 | | 1 | 69 | | 0 | 45 | | 4 | 92 | | 3 | 78 | |  |
|  |  |
| c) Predict the grade for a student who studied for 6 hours in a complete sentence.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  d) Is there a positive, negative, or no correlation to this scatter plot? Explain in a complete sentence.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |

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| Describe the trend in the scatterplot. | Positive Negative None |
| Describe the trend in the scatterplot. | Positive Negative None |
| Would you expect a positive correlation, a negative correlation or no correlation between the two data sets? Explain your reasoning.  ***A person’s age and the number of shoes they have.*** | Positive Negative None  Explanation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| Would you expect a positive correlation, a negative correlation or no correlation between the two data sets? Explain your reasoning.  ***The number of days it rains per year and the number of sunglasses sold.*** | Positive Negative None  Explanation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| Would you expect a positive correlation, a negative correlation or no correlation between the two data sets? Explain your reasoning.  ***The number of calories burned and the time spent mall walking.*** | Positive Negative None  Explanation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

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| The table gives the amount of battery life after a specific number of hours used for a cell phone. | |
| a) Draw a scatter plot of the data using the checklist   |  |  | | --- | --- | | Cell Phone Battery Life | | | Time Used (hours) | Battery Life (%) | | 0 | 100 | | 2 | 95 | | 4 | 71 | | 9 | 21 | | 15 | 11 | | 6 | 50 | | 13 | 35 |   **Checklist:**   * Title * Labeled axes * X-axis-increments of 2 * Y-axis -increments of 10   b. Draw a best fit line.  Be sure to do the following:   * Use a box around data * Use a straight edge * Extend the line beyond data |  |
| c) Predict the battery life after 11 hours in a complete sentence.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  d) Is there a positive, negative, or no correlation to this scatter plot? Explain in a complete sentence.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |

Graph the points on the grid paper. Find the best fit line using the box method. Approximate the value for the y-intercept, count out the slope and write the equation of the line in slope intercept form.

|  |  |
| --- | --- |
| **Number of**  **Chickens** | **Number of Eggs**  **Collected** |
| 2 | 3 |
| 5 | 10 |
| 3 | 6 |
| 4 | 4 |
| 5 | 6 |
| 6 | 7 |
| 9 | 9 |
| 8 | 10 |

1.)

**Checklist:**

* Title
* Labeled axes
* X-axis-scale
* Y-axis scale

Draw a best fit line.:

* Use a box

Around data

* Use a straight edge
* Extend the line beyond data

Approximate y-intercept: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Slope of the line: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Equation of the line: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Graph the points on the grid paper. Find the best fit line using the box method. Approximate the value for the y-intercept, count out the slope and write the equation of the line in slope intercept form.



|  |  |
| --- | --- |
| **Number of problems**  **you checked** | **Number problems wrong** |
| 1 | 7 |
| 3 | 6 |
| 5 | 3 |
| 4 | 4 |
| 10 | 1 |
| 2 | 5 |
| 8 | 2 |
| 7 | 1 |

1.)

**Checklist:**

* Title
* Labeled axes
* X-axis-scale
* Y-axis scale

Draw a best fit line.:

* Use a box

Around data

* Use a straight edge
* Extend the line beyond data

Approximate y-intercept: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Slope of the line: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Equation of the line: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| Describe a situation that would have a positive correlation. Use complete sentences.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| Describe a situation that would have a negative correlation. Use complete sentences.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| Describe a situation that would have no correlation. Use complete sentences.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |