|  |  |
| --- | --- |
| 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 our TI-Nspires. | |
| 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.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |

For each set of data, graph the points on the grid paper. Find the best fit line using the box method. Approximate the value for the y-intercept. Pick 2 points that the line goes through. They do not need to be one of the given points. Apply the slope formula. 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: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Identify x 1 : \_\_\_\_\_\_\_\_\_\_ Identify x 2 : \_\_\_\_\_\_\_\_\_\_

Identify y 1 : \_\_\_\_\_\_\_\_\_\_ Identify y 2 : \_\_\_\_\_\_\_\_\_\_

Calculate the slope of the line:

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

For each set of data, graph the points on the grid paper. Find the best fit line using the box method. Approximate the value for the y-intercept. Pick 2 points that the line goes through. They do not need to be one of the given points. Apply the slope formula. 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: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Identify x 1 : \_\_\_\_\_\_\_\_\_\_ Identify x 2 : \_\_\_\_\_\_\_\_\_\_

Identify y 1 : \_\_\_\_\_\_\_\_\_\_ Identify y 2 : \_\_\_\_\_\_\_\_\_\_

Calculate the 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.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |