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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

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| 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 NoneExplanation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| 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 NoneExplanation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| 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 NoneExplanation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

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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

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| 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. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |