**Week 2 Algebra II Interventions – Scatterplots Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| |  |  |  | | --- | --- | --- | | **1.** | The correlation seen in the graph at the right would be best described as: | http://www.regentsprep.org/Regents/math/ALGEBRA/AD4/prac1.gif | | **Choose:**  Top of Form  high positive correlation low positive correlation  high negative correlation low negative correlation  Bottom of Form | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| |  |  |  | | --- | --- | --- | | **2.** | You are asked to write an equation for the line of best fit for the scatter plot shown at the right without the use of a graphing calculator.  What should you do first? | http://www.regentsprep.org/Regents/math/ALGEBRA/AD4/Prac2.gif | | **Choose:**  Top of Form  Connect the points together. Find the slope using (1,2) and (9,12). Find the slope using (4,6) and (5,8). Decide which two points give the most representative straight line.  Bottom of Form | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| |  |  |  | | --- | --- | --- | | **3.** | True or False:  When data is graphed and a positive correlation is observed, the first set of data is always causing the affect seen in the second set of data. | http://www.regentsprep.org/Regents/math/ALGEBRA/AD4/lady1.jpg | | **Choose:**  Top of Form  True False  Bottom of Form | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| |  |  |  | | --- | --- | --- | | **4.** | The scatter plot at the right shows the number of chapters in a book in relation to the number of typos found in the book.  If you predict the number of typos that would occur in a book containing 12 chapters, you would be: | http://www.regentsprep.org/Regents/math/ALGEBRA/AD4/Prac3.gif | | **Choose:**  Top of Form  extrapolating interpolating  Bottom of Form | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| |  |  |  | | --- | --- | --- | | **5.** | When making a scatter plot, you should never: | http://www.regentsprep.org/Regents/math/ALGEBRA/AD4/lady2.jpg | | **Choose:**  Top of Form  label the axes connect the dots plot more than one *y* value for any *x* value use a graphing calculator  Bottom of Form | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| |  |  |  | | --- | --- | --- | | **6.** | If you were asked to interpolate information from this graph, you would have to be careful to limit the number of chapters to: | http://www.regentsprep.org/Regents/math/ALGEBRA/AD4/Prac3.gif | | **Choose:**  Top of Form  between 2 and 8 chapters between 1 and 9 chapters chapters 2, 4, 6, and 8 only there is no need to limit chapters  Bottom of Form | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| |  |  |  | | --- | --- | --- | | **7.** | Another term for line of best fit is | http://www.regentsprep.org/Regents/math/ALGEBRA/AD4/face.gif | | **Choose:**  Top of Form  scatter plot trend line tangent line slope  Bottom of Form | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **8**. | Prepare a scatter plot for the following data.  Determine from your graph whether there is a correlation between the number of hours spent in the mall and the number of dollars spent.   |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **Hours in Mall** | **10** | **8** | **9** | **3** | **1** | **2** | **5** | **6** | **7** | **8** | **2** | **3** | | **Dollars spent** | **40** | **15** | **24** | **20** | **10** | **35** | **50** | **70** | **18** | **25** | **100** | **60** |   [Answer](http://www.regentsprep.org/Regents/math/ALGEBRA/AD4/PracPlot.htm) | http://www.regentsprep.org/Regents/math/ALGEBRA/AD4/AG00485_.GIF | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **9**. | The following chart shows the prices of gasoline and milk at a local convenience store for a period of three weeks.  Exam this data for correlations between the price of gasoline and the price of milk.  Comment on what a correlation between this data is saying.   |  |  |  | | --- | --- | --- | | **Week:** | **Gasoline** | **Milk** | | **1st week** | **$2.89** | **$2.35** | | **2nd week** | **$2.95** | **$2.40** | | **3rd week** | **$3.04** | **$2.43** |   [Answer](http://www.regentsprep.org/Regents/math/ALGEBRA/AD4/PracPlot.htm) | http://www.regentsprep.org/Regents/math/ALGEBRA/AD4/gaspic.jpg  http://www.regentsprep.org/Regents/math/ALGEBRA/AD4/milk.gif | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| |  |  |  | | --- | --- | --- | | **10.** | Which situation describes a situation that is *not* a causal relationship? | http://www.regentsprep.org/Regents/math/ALGEBRA/AD4/hairgirl.jpg | | **Choose:**  Top of Form  The rooster crows and the sun rises. The more miles driven the more gasoline needed. The more powerful the microwave the faster the food cooks. The faster the pace of the runner the quicker the runner finishes.  Bottom of Form | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **11.** | For 10 days, Romero kept a record of the number of hours he spent listening to music. The information is shown in the table below.   |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | Day | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | | Hours | 9 | 3 | 2 | 6 | 8 | 6 | 10 | 4 | 5 | 2 |   Which scatter plot shows Romero’s data graphically? | http://www.regentsprep.org/Regents/math/ALGEBRA/AD4/PracPl1.gifhttp://www.regentsprep.org/Regents/math/ALGEBRA/AD4/PracPl2.gif http://www.regentsprep.org/Regents/math/ALGEBRA/AD4/PracPl3.gifhttp://www.regentsprep.org/Regents/math/ALGEBRA/AD4/PracPl4.gif | |  | |