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| UNIT 1 NOTES | |
| *Graphing*  Graphs – a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ illustrating the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ between two or more \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ being studied  Components – all graphs should include the following:   * Title – written as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ vs. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ variable   Location: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   * Dependent variable – the variable that \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   Location: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   * Independent variable – the variable that is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   Location: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   * Slope – the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   Symbol: \_\_\_\_\_\_\_\_\_\_\_\_  *Finding the Slope*  Equation for a straight line – allows you to examine the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ between \_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_  Equation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_  y-intercept – where the line crosses the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Symbol: \_\_\_\_\_\_\_\_\_  \*most of the time this should be “\_\_\_\_\_\_\_”  *Making graphs*  Scale – to set up the scale for both axes   * Increments must be \_\_\_\_\_\_\_\_\_\_\_\_\_\_ within an axis but both axis don’t have to have the same increments * Not all graphs have a \_\_\_\_\_\_\_\_\_\_\_\_\_\_ * Use as much space on the graph as possible. To do this follow these steps:  1. Find the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ between the high and low data point for an axis   Example: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  *\* If you want a y-intercept = 0, then the low data point is always 0*   1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_ the difference by the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ along that axis. This number will represent the scale for each box.   Example: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  *\* You can use this number, or bump it up for simpler increments such as 2.5 or 3.0*  Best Fit Line – a \_\_\_\_\_\_\_\_\_\_\_ line drawn through the \_\_\_\_\_\_\_\_\_\_ of a group of points   * Never \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ * Always \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ * Purpose is to determine the trend or \_\_\_\_\_\_\_\_\_\_\_\_\_ between the variables * Use the following steps:  1. After plotting the points, \_\_\_\_\_\_\_\_\_\_\_ the trend and where the line should go 2. Draw the line with an \_\_\_\_\_\_\_\_\_\_\_\_\_ of points on either side of the line with… 3. the distance of the points above the line should be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to the points below the line   *Reading your graph*  Direct Relationship – as x \_\_\_\_\_\_\_\_\_\_\_\_\_, y \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Equation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Inverse Relationship – as x \_\_\_\_\_\_\_\_\_\_\_\_, y \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Equation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Example: A ball is dropped from several distances above the floor (in meters) and the height it bounces is then measured (in centimeters). Create a title and write the variables on the appropriate axes.  Example: Graph and find the slope of (4,3) and (1,2)   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  |  |  |  |  | |  |  |  |  |  | |  |  |  |  |  | |  |  |  |  |  | |  |  |  |  |  |   Your data may give you a value other than “0”. Why?  Example: Use the data below to create a graph. Make sure to include all graph components and use the steps for setting up a scale.   |  |  | | --- | --- | | **Temperature (°F)** | **Ice Cream Sold (millions of cones)** | | 70 | 5.0 | | 80 | 5.5 | | 90 | 6.0 |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |   Example: Draw a best fit line for each set of points.    Direct Inverse |

SUMMARY

(3-4 sentences identifying the main points of the notes)