Name _____ Date _____ Period _____

Level I Guide: Chapter 1.3

Level I Directions: Read each statement carefully. Using your textbook, decide if the statement is true or false. If the statement is true, place a checkmark in the first blank and the page number in the second blank. If the statement is false, put a "0" in the first blank and the page number un the second blank. <u>Correct all statements that are false so that you have statements that are false so that you have true statements to help you study for your test.</u>

**True
False**   **Page**

_____ _____ 1. A visual way to organize data is to make a graph.

_____ _____ 2. Scientists can use graphs to show how variables are related.

_____ _____ 3. A line graph is used when one variable causes a second variable to increase or decrease.

_____ _____ 4. A circle graph is used to compare categories of information.

_____ _____ 5. A bar graph is a circular graph that compares categories of information.

_____ _____ 6. The independent variable is the variable that might influence (or change) another variable.

_____ _____ 7. The dependent variable is controlled by the experimenter.

_____ _____ 8. The independent variable is the variable that may be influenced (may be changed) by the independent variable.

_____ _____ 9. The first step in making a graph is to choose the x- and y- axis.

_____ _____ 10. The dependent variable goes on the x- axis and the independent variable goes on the y- axis.

_____ _____ 11. The first step in making a graph is to make a scale.

_____ _____ 12. On a graph, how much each axis is divided up to fit the range of data values is called the scale.

Name _____ Date _____ Period _____

_____ _____ 13. The third step in making a graph is to plot your data.

_____ _____ 14. In the forth step in making a graph, you must make sure your graph has a title and that your x- and y- axis labels have units.

_____ _____ 15. A relationship between variables cannot be easily seen in a clear pattern.

_____ _____ 16. If there is no relationship between variables, both variables increase.

_____ _____ 17. On a graph, a direct relationship looks like a collection of dots.

_____ _____ 18. An inverse relationship is when one variable increases and the other variable decreases.

_____ _____ 19. *Think About It*An example of a direct relationship would be as I increase my speed, the distance I travel also increases. An example of an inverse relationship would be as I spend my money, the less money I have.

Level II Guide: Chapter 1.3

Level II Directions: Go back to the beginning of the chapter and repeat the process, paying close attention to the pictures, charts, and diagrams. Follow the same process to mark the blanks and <u>remember to correct all false statements.</u>

True   **Page**
False

_____ _____ 1. According to Graph B on page 17, the units for the x-axis is miles.

_____ _____ 2. According to Graph C on page 17, the data on a circle graph is shown as a percentage.

_____ _____ 3. According to Graph A on page 17, the title of the line graph is Amount of Gas.

_____ _____ 4. According to graph on page 18, the independent variable goes on the x- axis.

Name _____ Date _____ Period _____

_____   _____   5.   According to Figure 1.10, depth is measured in atmospheres (atm.).

_____   _____   6.   According to the large graph on page 19, the x value range is 60.

_____   _____   7.   *Think About It* According to the large graph on page 19, the dependent variable is Pressure (atm).

_____   _____   8.   On page 20, the graph on the left of the page shows an inverse relationship between variables.

_____   _____   9.   According to Figure 1.12, the graph shows an inverse relationship between variables.
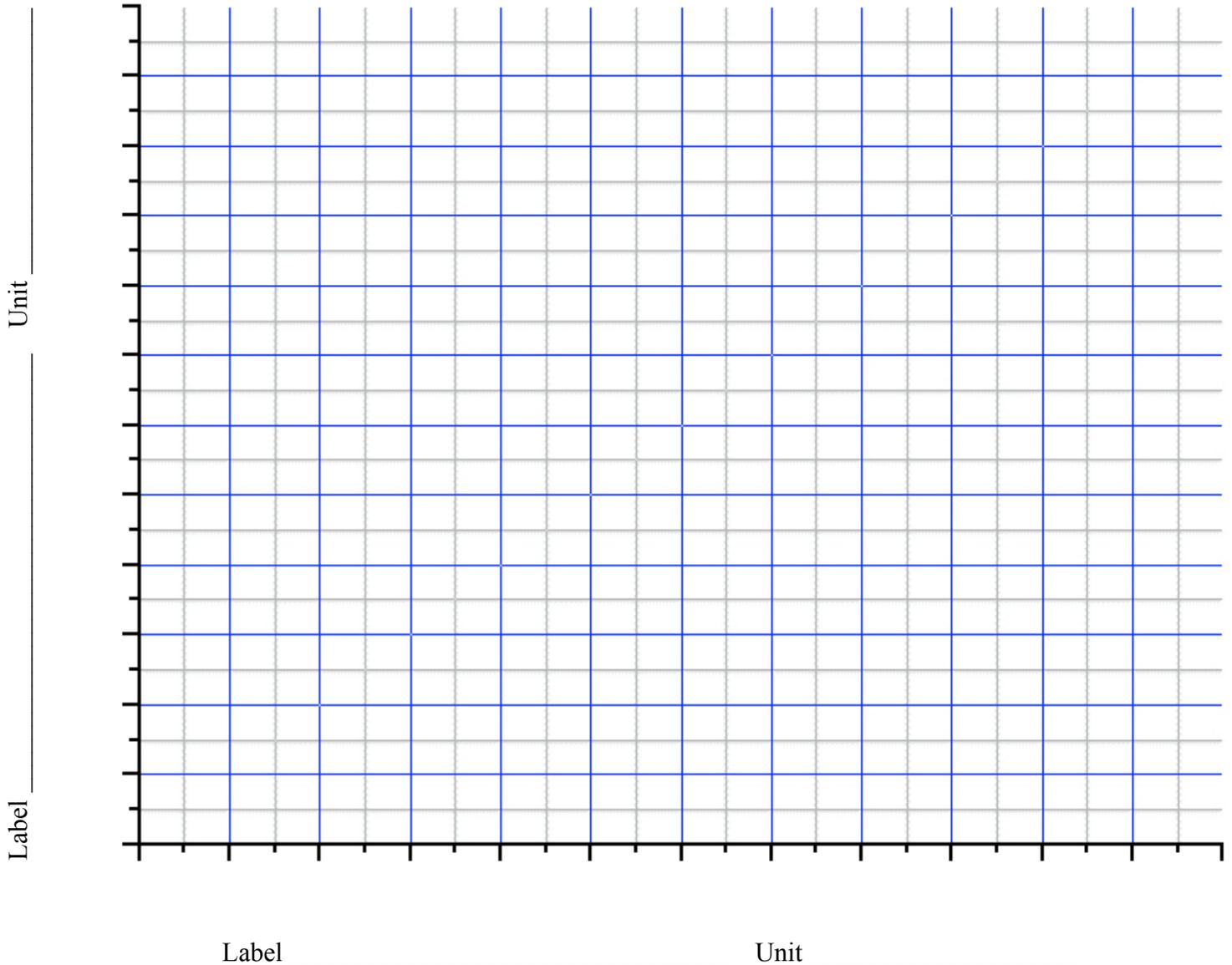
Name _____ Date _____ Period _____

Level III Guide: Chapter 1.3

Level III Directions: Using your prior knowledge and what you have learned from this section, **make a COMPLETE graph for the data below.**

Distance (cm)	10	20	30	40	50	60
Speed (cm/sec)	20	40	55	62	73	84

Title: _____
(Make sure to tell me what is ON the graph!)

Unit _____

Label _____

Label _____ Unit _____

Name _____ Date _____ Period _____

Level III Guide: Chapter 1.3- Honors

Level III Directions: Using your prior knowledge and what you have learned from this section, **make a COMPLETE graph for the data below.**

Distance (cm)	10	20	30	40	50	60
Speed (cm/sec)	20	40	55	62	73	84