**Metric Measurements Review #3**

Matching: write the letter of the definition next to the vocabulary word.

|  |  |  |  |
| --- | --- | --- | --- |
| 1. \_\_\_\_\_ | Mass | a. | Parts of the experiment that are kept the same throughout an experiment |
| 2. \_\_\_\_\_ | Weight | b. |  The amount of space an object occupies |
| 3. \_\_\_\_\_ | Volume | c. | Milliliter (mL), cubic centimeter (cm3) |
| 4. \_\_\_\_\_ | L x W x H | d. | A prediction about the results of an experiment, also called an educated guess. |
| 5. \_\_\_\_\_ | Density | e. | Is a measure of the force of gravity on mass (like you) |
| 6. \_\_\_\_\_ | Hypothesis | f. | How much matter an object contains |
| 7. \_\_\_\_\_ | Experiment | g. | Formula for the volume of a “regular” shaped object |
| 8. \_\_\_\_\_ | Control | h. | Mass of an object divided by its volume |
| 9. \_\_\_\_\_ | Independent Variable | i. | A variable that is changed by the scientist(What the scientist chooses to study) |
| 10. \_\_\_\_ | Dependent Variable | j. | A repeatable scientific procedure to test a hypothesis |
| 11. \_\_\_\_ | Units of volume | k. | Expressed in numbers |
| 12. \_\_\_\_ | Valid | l. | A statement reflecting the validity of a hypothesis |
| 13. \_\_\_\_ | Data | m. | Observations/Measurements from an experiment |
| 14. \_\_\_\_ | Quantitative | n. | A variable that the scientist **measures** as a result of the independent variable |
| 15. \_\_\_\_ | Conclusion | o. | Results that are consistent and accurate |
| 16. \_\_\_\_ | Line Graph | p. | Used to show percentages |
| 17. \_\_\_\_ | Bar graph | q. | Used to show a trend or a change over time |
| 18. \_\_\_\_ | Pie Graph | r. | Used to show differences between similar things |

**Short Answers**

19. a. Use your ruler to measure the height, length and width of the 315.26g piece of metal pictured here, and then calculate the **volume and density. (show your work)**



b. Using the density chart identify the metal. **Density Chart**

 Gold 19.3g/cm3

 Silver 10.5 g/cm3

**20. a. Volume by Difference: Determine the volume of the objects in the graduated cylinders below**



b. using the volume in picture A. above, if the egg has a mass of 10g, what is it’s density? SHOW WORK

21. A chemist measured the temperature of his chemical reaction over time.

What is the independent variable? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What is the dependent variable? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Graph the data from the data table below,

 include a title and a scale that uses the

 whole graph paper.

|  |  |
| --- | --- |
| Time, min | Temperature,0C |
| 0 | 20 |
| 5 | 24 |
| 10 | 28 |
| 15 | 32 |
| 20 | 38 |