Name: _____ Period: _____ Date: _____

Scientific Method, Measurements and Graphing TEST Review

1. A kindergarten teacher wondered if changing the color of mashed potatoes would make her students eat more of it. She decided to give half her students mashed potatoes with blue food coloring. She gave the other half of her students regular, non-colored, mashed potatoes. At the end of lunch, she noticed that both groups ate the same amount of mashed potatoes.

    a. Which group is the **control group**? _____
    b. Which group is the **experimental group**? _____
    c. What is the manipulated (**independent**) variable: _____
    d. What is the responding (**dependent**) variable: _____
    e. What should the teacher's **conclusion** be? _____
    _____

2. Define **hypothesis**: _____

3. Give an observation about the picture below. Give an inference about the picture below.

    Observation:

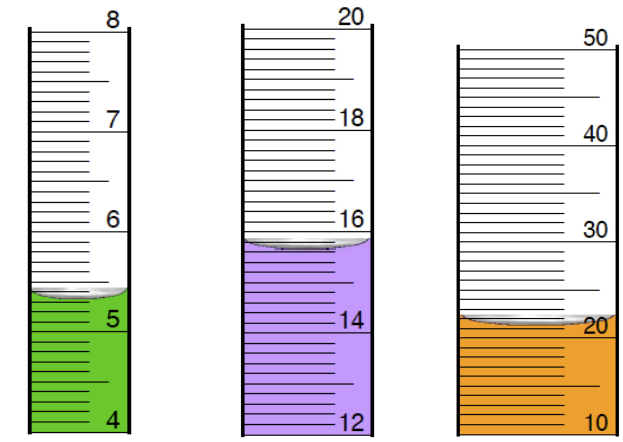
    Inference:

4. Put the following steps of the scientific method in the correct order:

    _____ Draw a conclusion from your results
    _____ Make a hypothesis
    _____ Make an observation (Ask a question)
    _____ Perform an experiment
    _____ Gather results and analyze data

5. What unit (meters, grams, or liters) do you use to measure **mass**: _____
6. What unit (meters, grams, or liters) do you use to measure **length**: _____
7. What unit (meters, grams, or liters) do you use to measure **volume**: _____
8. What unit do you use to measure the **length** of your shirt: _____
9. What unit do you use to measure the **mass** of your back pack: _____
10. What unit do you use to measure the **volume** of the coffee in your cup: _____
11. What is the difference between **mass** and **weight**?

12. Measure the **volume** of the following graduated cylinders in <u>milliliters</u>:



_____ _____ _____

13. Create a **line graph** using the data below:

Month	Rainfall (inches)
Jan	4
Feb	2
March	5
April	7
May	6
June	3

14. **Convert** the following measurements:

- 1.453m = _____ mm
- 0.345mm = _____ km
- 3.91 cm = _____ m
- 674m = _____ mm
- 3928mm = _____ km

15. When a graduated cylinder is filled with water to **10ml** of water, and a marble is dropped in, the water level rises to **25.5ml**. The **mass** of a marble is **45.5g**.

What is the **volume** of the marble?

What is the **density** of the marble?