

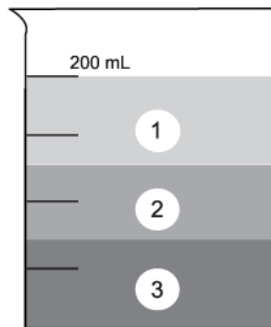
# MiSP Density Worksheet #3 Assessment, L3

Name \_\_\_\_\_

Date \_\_\_\_\_

1. Think about when your class observed three liquids poured into a container and they formed layers: first syrup, then water, and then oil. Three liquids found in many households are listed with their densities below. Label the beaker to show where each of those liquids would be if they were put in layers into the beaker.

<u>Liquid</u>	<u>Density</u>
Glycerol	1.3 g/ml
Mineral Oil	0.8 g/ml
Acetone	0.7 g/ml

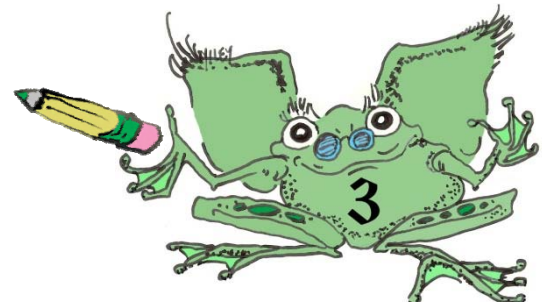


1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

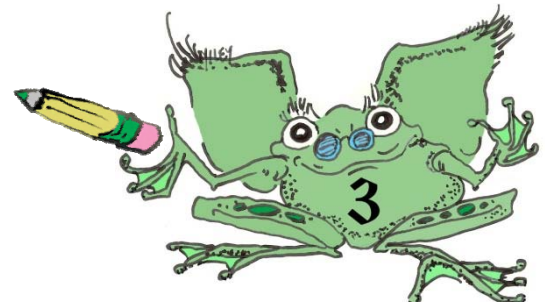
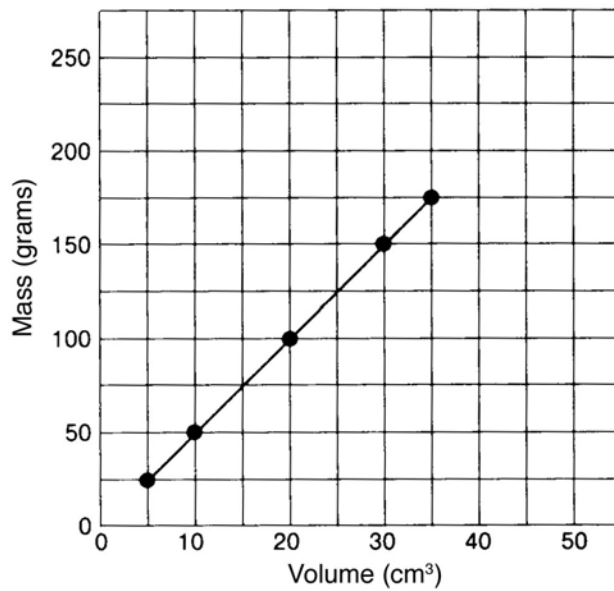
2. Calculate the mass of a 10 ml volume of gasoline with a density of 0.7 g/ml. SHOW ALL WORK.



3. Calculate the volume of a 20 g sample of water. Remember that the density of water is 1 g/ml.  
SHOW ALL WORK.

Refer to the graph below to answer questions 4–6 (L1), 4–7 (L2), and 4–10 (L3). (Note: 1 cm<sup>3</sup> is the same as 1 ml.)

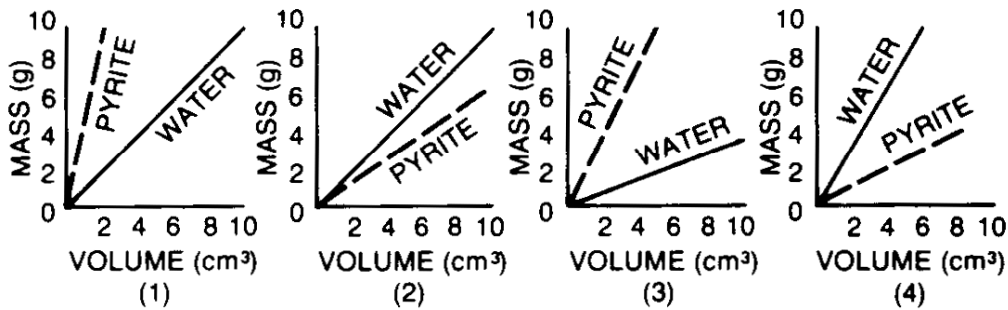
**Mass and volume for five samples of the mineral pyrite.**



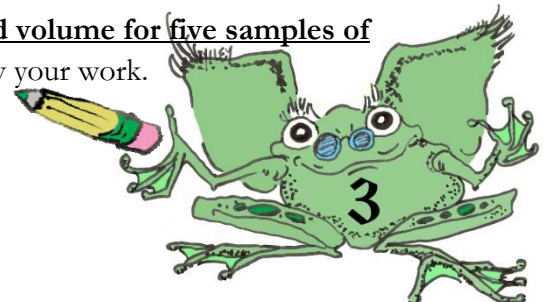
4. According to the graph above, what is the density of pyrite? Show your work.

5. If a sample of pyrite has a volume of 50 cm<sup>3</sup>, what is its mass (g)? Show your work.

6. Which diagram below best represents what a graph would look like if the density of pyrite and the density of water (1.0 gram/cm<sup>3</sup>) are plotted on the same graph?



7. What is the unit rate of change (slope) for the line on the Mass and volume for five samples of the mineral pyrite graph? Explain how you got your answer, or show your work.



Unit rate of change (slope) for the pyrite graph: \_\_\_\_\_

Explanation or work:

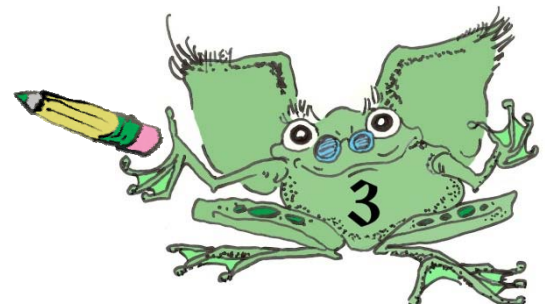
8. Write the formula for the line on the **Mass and volume for five samples of the mineral pyrite** graph.

9. Using the formula from #8, what is the mass of a sample of pyrite with a volume of 1250 cm<sup>3</sup> (ml)? Show your work.

Mass of a 1250 cm<sup>3</sup> of pyrite: \_\_\_\_\_

10. What is the density of a 1250 cm<sup>3</sup> (ml) sample of pyrite? Explain why, or show your work.

Density of a 1250 cm<sup>3</sup> of pyrite: \_\_\_\_\_



Explanation or work:

A large empty rectangular box for writing an explanation or work.

