

Name _____

Date _____

Score _____

Free Response HW: Density

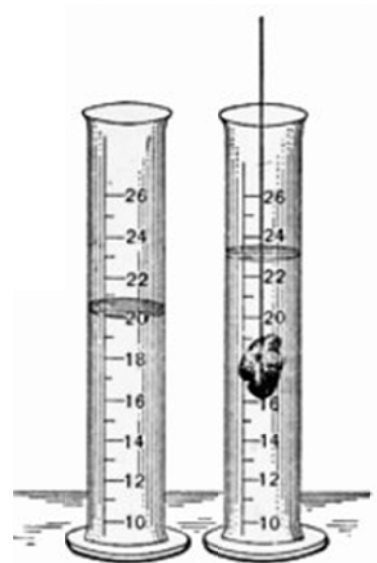
Period _____

Directions: Solve the final density problems using the steps below:

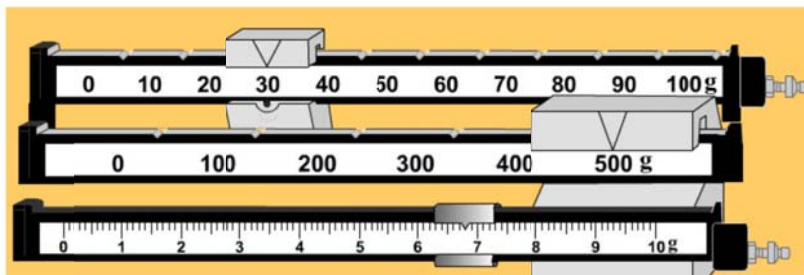
- Write the equation (1 point)
- Substitute data into the equation (1 point) with proper units (1 point)
- Solve the equation (1 point), rounding to the nearest 0.1 (1 point) with proper units (1 point)

1. Determine the density of a Galena sample that has a mass 236.5 grams and a volume of 32.8 cm³?

2. Determine the mass of a rock that has a density 6.3 g/cm³ and whose volume is shown below. Write the volume of the object here: _____



3. Determine the volume of a granite sample that has a density of 2.7 g/cm³ and a mass that is shown below. Write the mass of the object here: _____



Directions: Solve the final density problems using the steps below:

- d. Write the equation (1 point)
 - e. Substitute data into the equation (1 point) with proper units (1 point)
 - f. Solve the equation (1 point), rounding to the nearest 0.1 (1 point) with proper units (1 point)
4. Determine the density of an unknown object, the object has a mass of 16.7 grams and the following measurements: length 2.1 cm, width 1.6 cm and height 3.3 cm. If you placed this object in water (density 1.0 g/ml) would the object **float** or **sink**? Circle one. When you determine the volume you must show your work.
5. Determine the density of a Pyrite sample that has a mass 816.5 grams and a volume of 163.3 cm³?