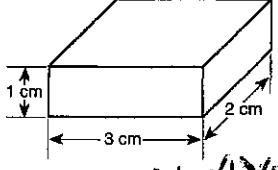


Name \_\_\_\_\_

Date \_\_\_\_\_ Period \_\_\_\_\_

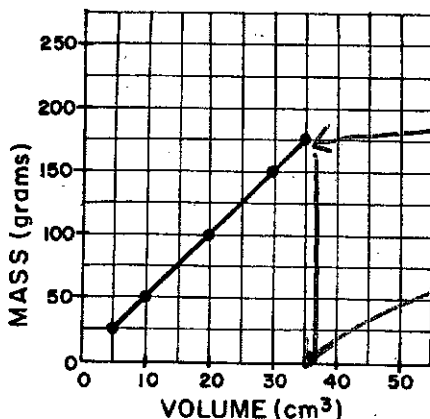
Density Calculation Worksheet

Record all answers to the *nearest tenth*. **SHOW ALL WORK**

<p>1. A material has a mass of 6.8 grams and a volume of 2.1 cm<sup>3</sup>. Calculate the density of the object?</p> $\frac{6.8g}{2.1cm^3} = 3.23 g/cm^3$	<p>2. A quantity of liquid has a volume of 30 ml and a mass of 15 grams. Calculate the density of the liquid.</p> $\frac{15g}{30ml} = 0.5 g/ml$
<p>3. A rectangular object is 3 cm long, 2 cm wide, and 4 cm high. Calculate the <u>VOLUME</u> of the object?</p> <p style="text-align: center;"><math>L \times W \times H</math></p> $(3cm)(2cm)(4cm) = 24cm^3$	<p>4. The same object that was described in question #3 has a mass of 72 grams. What is the density of the object?</p> $\frac{72g}{24cm^3} = 3 g/cm^3$
<p>5. What is the density of the object shown here? It has a mass of 12 grams.</p>  $V = (1)(3)(2) = 6cm^3$ $\frac{12g}{6cm^3} = 2 g/cm^3$	<p>6. Pyrite has a density of 5.0 g/cm<sup>3</sup> and gypsum has a density of 2.3 g/cm<sup>3</sup>. If you have the same size sample of each material:</p> <p>Which one would be heavier? <i>Pyrite</i></p> <p>Which has atoms more spread out? <i>gypsum</i> <i>atom not as concentrated</i></p>
<p>7. The density of water is 1.0 g/ml. Which objects would sink in water?</p> <p>1. neither gypsum nor pyrite    2. gypsum    3. Pyrite    4. Both gypsum and pyrite <i>heavier than 1.0 g/ml</i></p>	

8. What is the density of the material shown on the graph below:

SHOW ALL WORK AND INCLUDE UNITS ON YOUR ANSWER:



$$\frac{175g}{35cm^3} = 5 g/cm^3$$