**GPS- Density**

Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period\_\_\_\_\_\_\_\_\_\_

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| Bellwork |
| *How would you compare the* ***density*** *of the two items below?* |

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| Introduction to Density |
| 1. Density 🡪 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Formula for density
3. Using the triangleImage result for formula triangle Cover the variable you want to find… \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ if on top \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ if side by side
 |

*Let’s Practice!!* Complete “Density” Sheets on your own.

Density = Mass ÷ Volume  Units= g/cm3 or g/ml

Use the density formula to solve the following problems. ***Show all work*** and the answer must have the correct units. Mass is measured in grams or kilograms. Remember that volume can have different units. A block of ice with a volume of 3 cm3 would be 3 mL of liquid after being melted.

1. What is the density of CO gas if 0.196 g occupies a volume of 100 ml?

Answer\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. A block of wood 3 cm on each side has a mass of 27 g. What is the density of the block? (Hint, don’t forget to find the volume of the wood. V=length x width x height)

Answer\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. An irregularly shaped stone has a volume of 7ml. If the mass of the stone was 25 g, what was its density?

Answer\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. A 10.0 cm3 sample of copper has a mass of 89.6 g. What is the density of copper?

Answer\_\_\_\_\_\_\_\_\_

5. Silver has a density of 10.5 grams/cm3 and a volume of 5cm3. What is the mass of the sample? Use the triangle.

Answer\_\_\_\_\_\_\_\_\_

6. Ethanol has a volume of 5 mL and a mass of 3.9 g, and 5 mL of benzene has a mass of 44 g. Which liquid has a higher density? First, find the density of both. Then, circle the higher density.

Answer\_\_\_\_\_\_\_\_\_

7. A sample of iron has the same dimensions of 2 cm x 3 cm x 2 cm. If the mass of this rectangular-shaped object is 94 g, what is the density of iron? First, find the volume (length x width x height).

Answer\_\_\_\_\_\_\_\_\_

Raise your hand when you’re done to get Ms. Crowley or Ms. Perry’s initials in the box!

Teacher’s Initials