

Gen Chem: **Density Practice** Name: _____

Solve for density:

1. Calculate the density of a material that has a mass of 52.457 g and a volume of 13.5 mL.
2. A student finds a rock on the way to school. In the laboratory he puts the rock in a graduated cylinder and the volume rises from 44.5 mL to 67.2 mL. He puts the rock on a balance and finds it weighs 39.94 g. What is the density of the rock?

Solve for mass:

3. Iron has a known density of 7.87 g/mL. What would be the mass of a 2.5 mL piece of iron?

Solve for volume:

4. Mercury has a density of 13.5 g/mL. How much space would 50.0 g of mercury occupy?

Mixed Practice: (before solving, determine the variable asked for)

5. Pure gold has a density of 19.32 g/mL. What would the volume of a piece of gold be if it had a mass of 318.97 g?
6. A student determines that a piece of an unknown material has a mass of 5.854 g and a volume of 7.57 mL. What is the density of the material?
7. How many grams of tin would occupy 5.48 mL, if it has a density of 7.265 g/mL?
8. The density of silver is 10.49 g/mL. If a sample of pure silver displaces water in a graduated cylinder from 32.9 mL to 53.7 mL, what would be the mass?
9. How many mL would a 65.93 g sample of copper occupy if it has a density of 8.92 g/mL?