

Unit 2B Density Practice Problems II Name:

Date:

1. Density describes the relationship between the \_\_\_\_\_ and \_\_\_\_\_ of a sample of a substance.

2. The most common units for density are \_\_\_\_\_ and \_\_\_\_\_ .

- 3. The density of water is \_\_\_\_\_.
- 4. A small beaker contains 55.0 mL of water. What would be the mass of the water?
- 5. Object A has a mass of 500 g and a density of 5.0 g/cm<sup>3</sup>. Object B has a mass of 650 g and a density of 6.5 g/cm<sup>3</sup>. a. Which object would displace the most liquid? Show your work and EXPLAIN in the space below.

b. Could the two objects be made of the same substance? EXPLAIN in the space below.

6. The density of silver is 10.5 g/cm<sup>3</sup>. What will be the volume of a piece of silver having a mass of 31.5 g?

7. A sample of iron occupies a volume of 10.0 cm<sup>3</sup>. If the density of iron is 7.9 g/cm<sup>3</sup>, what is the mass of the sample?

8. A sample of iron occupies a volume of 10.0 cm<sup>3</sup>. If the density of iron is 7.9 g/cm<sup>3</sup>, what is the mass of the sample?