

Density Cubes

Name: _____

Directions: Follow the directions for determining the density of water. Then, use the space below to document your observations for each cube. Answer the questions at the end when you're done.

Mass of graduated cylinder (g): _____

Measure 10. mL of water into the graduated cylinder.

Mass of water and graduated cylinder (g): _____

Mass of just water (g): _____

Density of water ($1 \text{ g/mL} = 1 \text{ g/cm}^3$): _____

1. What is the same about all of the cubes?
2. What is different about the cubes?
3. What do those differences mean?
4. What is the main conclusion you draw from exploring mass and volume of the cubes?
5. What is the relationship between the density of water and the density of the cubes that sink and float?