

Practice: Density Calculations

Answer the following questions. Make sure to show all work to receive credit. You may need a separate sheet of paper.

1. Find the volume of a box measuring 2 cm by 7 cm by 3 cm.
2. An object placed in a graduated cylinder raises the volume from 12.2 mL to 14.5 mL. Find the volume of the object.
3. Find the volume of a cube measuring 5 cm on each side.
4. Find the density of the box in #1 if it has a mass of 20 g.
5. Find the density of the object in #2 if it has a mass of 4 g.
6. Find the density of the cube in #3 if it has a mass of 100 g.
7. Find the mass of an object that has a density of 1.5 g/cm^3 and has a volume of 8 cm^3 .
8. Find the volume of an object with a density of 3.1 g/mL and a mass of 12 g.
9. Find the mass of a cube that has a density of 2.7 g/mL and measures 3 cm on each side.
10. **Challenge:** Find the density of a soda can with a radius of 3.25 cm, a height of 12.2 cm, and a mass of 40 g.