

Volume & Density Extra Practice

Name: _____

Date: _____ Core: _____

Directions: Based on the information given below, calculate the object's density. Use the formulas below to help you:

$$\text{Volume} = \text{After} - \text{Before}$$

$$\text{Volume} = \text{Length} \times \text{Width} \times \text{Height}$$

$$\text{Density} = \text{Mass} \div \text{Volume}$$

1. After putting a **cube** on a scale, the screen reads 24.7g. Your partner measured the height to be 13.2cm. **SHOW YOUR WORK!**

2. The volume of an object is 346.7cm^3 . The mass is 43.07g. **SHOW YOUR WORK!**

3. You have measured the length of an object to be 14.5cm. The height and the width are both 23cm. The mass of this object is 48.5g. **SHOW YOUR WORK!**

4. After adding an object to the graduated cylinder, the water level is at the 56mL mark. Before putting the object in, it read 31mL. The mass of this object is 13g. **SHOW YOUR WORK!**

5. You and your partner have calculated the volume of an object to be 53.7mL. The mass of this object is 60.04g. **SHOW YOUR WORK!**

6. You find that the mass of an object is 2.3g. The volume is 417.4cm^3 . **SHOW YOUR WORK!**
7. The length of an object is 6.3cm. The width is 4.5 and the height is 3.9cm. The mass is 166g. **SHOW YOUR WORK!**
8. Before adding an object to the graduated cylinder, the water level is at 20mL. After adding the object, the water level is at 51.3mL. The height of the object is 10.2cm. The mass is 30.3g. **SHOW YOUR WORK!**
9. The height of an object is 23cm. The width is 2cm and the length is 17.1cm. The mass is 40.5g. **SHOW YOUR WORK!**
10. You and your partner are having an argument about the object: is it regular or irregular? It has a cube shape, but there are small bumps on the surface. You decide to split up and each try a different method to compare results. You find that the water after adding the object is at 42.8mL. Before you added the object, it was at 30mL. The mass is 14.3g. Your partner found the height to be 2cm, the width to be 2 cm, and the length to be 3cm. **SHOW YOUR WORK!**

Who was right? Do the small bumps make a difference? _____