

Name: _____
Blk: _____ Date: _____

Science 8
MORE Density Calculations

For the following problems be sure to:

1. Draw the Density Triangle, and write out the correct formula
2. Plug in the correct values and units
3. Answer in sentence form

1. A student measures the mass of an 8 cm³ block of brown sugar to be 12.9 g. What is the **density** of the brown sugar?

2. A chef fills a 50 mL container with 43.5 g of cooking oil. What is the **density** of the oil?

3. A machine shop worker records the mass of an aluminum cube: 176 g. If one side of the cube measures 4 cm, what is the **density** of the aluminum?

4. Based on the density values on page 262 of BC Science 8, list how the following liquids would **layer in a beaker from top to bottom**: glycerol, ethyl alcohol, mercury, seawater, machine oil, water.

5. A teacher places a piece of cork into 20.0 mL of water and the water level rises to 23.5 mL. If the piece of cork has a mass of 5.7 g, what is the **density** of the cork?

6. A carver begins work on a block of granite that measures 20 cm by 10 cm by 5 cm. If the block of granite has a mass of 2700 g, what is the **density** of the granite?

7. A piece of PVC plumbing is placed into 100 mL of water and the water level rises to 160 mL. If the pipe has a density 1.3 g/cm^3 , what is the **mass** of PVC?

8. Solid magnesium has a density of 2.0 g/cm^3 . If a solid magnesium flare has a mass of 1300 g, what is the **volume** of the flare?

9. Gold has a density of 19.3 g/cm^3 . If a gold bar measures 20 cm by 5 cm by 5 cm, What is the **mass** of gold bar?

10. The density of ice is 0.9 g/cm^3 , if the mass of an ice cube is 7 grams, What is the **volume** of the ice cube?