Show all calculations for the following questions. Answer the questions on a separate sheet of paper

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. Mystery substance A has a mass of 1780g and a volume of 200cm3. Find its density. What substance is it
4. Mystery substance B has a mass of 972g and a volume of 360cm3. What substance is it?
5. Mystery substance C has a mass of 132.79g and a volume of 9.8mL. What substance is it?
6. Mystery substance D has a mass of 1404g and a volume of 650cm3. What substance is it?
7. Mystery substance E has a mass of 1422g and a volume of 1800mL. What substance is it?
8. A liquid has a mass of 200 g and a volume of 50 mL.
   1. What is its density?
   2. Will it float or sink on water?
9. Calculate the density of the following block. The mass of the block is 30g. Show all calculations

4cm

3cm

2cm

1. A stone is put in a graduated cylinder of 50 mL water. The volume rises to 70 mL.

What is the volume of the stone?

If the stone has a mass of 100 g, what is its density?

1. A teacher performing a demonstration finds that a piece of cork displaces 23.5 mL of water. The piece of cork has a mass of 5.7 g. What is the density of the cork?
2. 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?
3. A solid magnesium flare has a mass of 1300 g and a volume of 743 cm3. What is the density of the magnesium?
4. An ice cube has a volume of 12 cm3, and a mass of 11 g. What is the density of the ice?

15. Gold is one of the densest substances on Earth. A gold bar 20 cm by 5 cm by 5 cm has a mass of 9.7 kg. What is the density of gold? Express your answer in g/cm3.