1. Mass, weight and density

1. A squared brass plate is 2mm thick and has a mass of 1.05kg. The density of brass is 8.4g/cm. Calculate the length of the plate in centimeters. (3mks)

2. A sphere has a surface area 18cm^2. Find its density if the sphere has a mass of 100g. (3mks)

3. Nyahururu Municipal Council is to construct a floor of an open wholesale market whose area is 800m^2. The floor is to be covered with a slab of uniform thickness of 200mm. In order to make the slab, sand, cement and ballast are to be mixed such that their masses are in the ratio 3:2:3. The mass of dry slab of volume 1m^3 is 2000kg. Calculate

   (a) (i) The volume of the slab (2mks)

   (ii) The mass of the dry slab. (2mks)

   (iii) The mass of cement to be used. (2mks)

   (b) If one bag of the cement is 50kg, find the number of bags to be purchased. (1mk)

   (c) If a lorry carries 10 tonnes of ballast, calculate the number of lorries of ballast to be purchased. (3mks)

4. A sphere has a surface area of 18.0cm^2. Find its density if the sphere has a mass of 100 grammes. (3 mks)

5. A piece of metal has a volume of 20 cm^3 and a mass of 300g. Calculate the density of the metal in kg/m^3.

6. 2.5 litres of water density 1g/cm^3 is added to 8 litres of alcohol density 0.8g/cm^3. Calculate the density of the mixture