# Mass, Volume and Density

1. A milk carton is a cuboid with size as shown.
   (a) Find the volume of the carton. _____ cm³
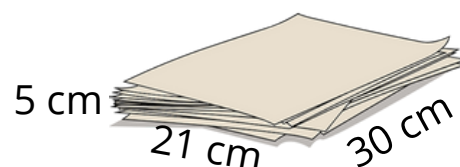
   (b) If it contains 8 cm³ of air, find the volume of the milk. _____ cm³

   (c) Find the mass of the milk if it has a density of 1 gram/cm³. _____ g

   8 cm

   6 cm    2 cm

2. A ream (500 sheets) of paper is shown in the diagram.
   If the mass of the ream is 2.5 kg, find the density of the paper.
   _____ g/cm³ (to 3 d.p.)

   5 cm
   21 cm    30 cm
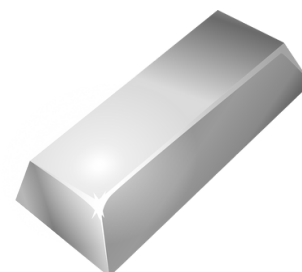
3. A metal bar has a cross section with an area of 3 cm² and a length of 40 cm. Its mass is 300 grams.
   (a) Find the volume of the bar. _____ cm³

   (b) Find the density of the bar. _____ g/cm³

   (c) Find the mass of another bar with the same cross section and length 50 cm. _____ g

   (d) Find the mass of a bar made from the same material, but with a cross section of area 5 cm² and length 80 cm. _____ g

4. A bottle which holds 450 cm³ of water has a mass of 530 grams. What is the mass of the empty bottle? _____ g

# Mass, Volume and Density

1. A milk carton is a cuboid with size as shown.
   (a) Find the volume of the carton.  96 cm³

   (b) If it contains 8 cm³ of air, find the volume of the
   milk. 88 cm³

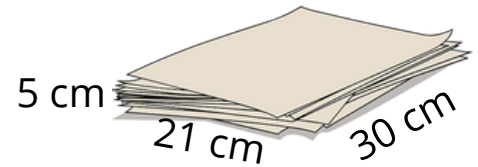   (c) Find the mass of the milk if it has a density of 1
   gram/cm³. 88 g

   8 cm
   6 cm   2 cm

2. A ream (500 sheets) of paper is shown in the diagram.
   If the mass of the ream is 2.5 kg, find the density of the paper.
    0.794 g/cm³ (to 3 d.p.)

   5 cm
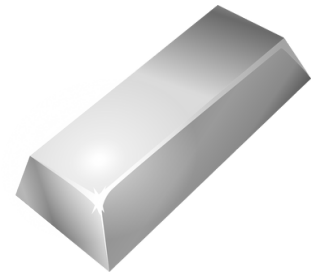   21 cm      30 cm

3. A metal bar has a cross section with an area of 3 cm² and a length
   of 40 cm. Its mass is 300 grams.
   (a) Find the volume of the bar. 120 cm³

   (b) Find the density of the bar. 2.5 g/cm³

   (c) Find the mass of another bar with the same cross section and
   length 50 cm.  375 g

   (d) Find the mass of a bar made from the same material, but with a
   cross section of area 5 cm² and length 80 cm. 1000 g

4. A bottle which holds 450 cm³ of water has a mass of 530
   grams. What is the mass of the empty bottle? 80 g