Problems in Metric Units

1) (a) Convert 3.4m into centimetres
   (b) Convert 3.4 m^2 into cm^2
   (c) Convert 3.4m^3 into cm^3

2) (a) Convert 47cm into metres
   (b) Convert 47cm^2 into m^2
   (c) Convert 47cm^3 into m^3

3) An urn holds 5.2 litres of tea. How many teacups each holding 160ml can be filled from the urn?

4) A watch weighs 175g. What is the weight (in kg) of a box containing 50 watches, if the box and packing weighs 2.5kg?

5) A sheet of plastic is 8mm thick. How many sheets can be stacked in a box with a depth of 1.2 metres?

6) If 1 litre of oil weighs 2.4kg, what is the weight of oil in a fuel tank with a volume of 25m^3. Give your answer in tonnes.

7) (a) What is the volume (in cm^3) of a plank of wood measuring 8.5cm by 8mm by 1.3m?

   (b) What is the area (in hectares) of a rectangular field measuring 1.2km by 640m?

8) If one bale of hay weighs 30kg, how many bales can be made from 10.5 tonnes of hay?

9) If it takes 800g of grass seed to seed 1m^2 of lawn, how many kilograms of seed are required for a lawn 16.5m by 9m?

10) 25 rectangles each measuring 30cm by 15cm are cut from a sheet of card 1.4m by 1.1m. What area of card is not used: (a) in cm^2, and (b) in m^2

11) How many litres of water will be needed to fill a tank measuring 4.2m by 3m by 80cm?

12) If 1 litre of fertiliser will treat an area of 25m^2, how many litres will be needed for a field with an area of 40 hectares?

13) If 1m^3 of hay weighs 200kg, how many bales measuring 80cm by 50cm by 40cm will be made from 5 tonnes of hay?

14) 10 litres is approximately 2.2 gallons, and 8km is approximately 5 miles. If a car travels 386km on 40 litres of petrol, find the car's petrol consumption in miles per gallon (ie how many miles it travels on 1 gallon of petrol).