Irrigation Principles 604103

Howe work 1

The objective of this homework is to get familiar with unit conversion. Please show all your work.

1. Show that 1 m3 = 35.315 ft3.
2. What is the weight of 106 liter of water in
   1. Kilograms
   2. Pounds
3. An area of land has the dimensions of 1040 m x 604 m. Calculate the area in :
   1. Dunums
   2. Hectares
   3. Acres
4. A water depth of 44 mm is needed to irrigate the piece of land in question 3. Calculate total volume of water in :
   1. Cubic meter (m3)
   2. Cubic feet
   3. Hectare-meter
   4. Acre-foot
5. A cylindrical reservoir of 1.1 m in diameter and 2 m in length. Calculate the total volume of the reservoir in:
   1. Liters
   2. Cubic feet (ft3)
6. A pipe line has a length of 55 Km and a diameter of 7 inches. Calculate the following its length in :
   1. Meter
   2. Yard
   3. Miles
   4. Feet
7. In question 6, if the pipe is half full what is the volume of water in
   1. Cubic metes
   2. Cubic feet
8. Convert 55 psi of pressure to :
   1. Pa
   2. KPa
   3. Atmosphere
   4. Bar
   5. Meter of water
   6. mm of mercury (density of mercury is 13.534 g/cm3)