

Show all your work in the following calculations and calculate to the correct number of significant figures and write the units.

- 1) What is the density of a salt solution if 50.0 mL has a mass of 57.0g? (Ans: 1.14 g/mL)
  
  
  
  
  
  
  
  
  
  
- 2) Some metal chips have a volume of 3.29 cm<sup>3</sup>. The mass of the chips is 16.293 g. What is the density of the metal? (Ans: 4.95 g/cm<sup>3</sup>)
  
  
  
  
  
  
  
  
  
  
- 3) A glass container weighs 48.462 g. A sample of 4.00 mL of antifreeze is added to the container, the new weight is 54.513 g. What is the density of the antifreeze? (Ans: 1.51 g/mL)
  
  
  
  
  
  
  
  
  
  
- 4) Silica has a density of 2.20 g/cm<sup>3</sup>. Calculate the volume of silica in 125 Kg. (Ans: 5.68 x 10<sup>4</sup> cm<sup>3</sup>)
  
  
  
  
  
  
  
  
  
  
- 5) Hylon is a starch based substance to make polymers. It has a bulk density of 12.8 kg/m<sup>3</sup>. How many grams of the material are needed to fill a volume of 2.00 ft<sup>3</sup>? (Ans: 725 g)