

Density Problems

Name:

1. What is the density of an element if a sample having a mass of 43.2g has a volume of 96.5mL?
2. A sample of gas has a volume of 4L and a mass of 4.922g. What is its density?
3. Mercury has a density of 13.6g/mL. What is the volume of a sample that has a mass of 2242g?
4. If a liquid has a density of .88g/cm³, what volume of this liquid would have a mass of 54g?
5. What is the mass of 84mL if a liquid if its density is 1.25g/mL?
6. What is the mass of 25mL of oxygen gas if its density is 1.43g/mL?
7. A gas is confined in a rectangular tank 25cm long, 8cm high and 10.4cm wide. If the density of the gas is 19.3g/L, what is the mass of the gas?
8. The density of an acid is 1.85g/mL. What volume of the acid would have a mass of 64g?
9. If 40mL of a liquid with a mass of 44.8g was mixed with 50mL of a liquid having a mass of 48g, what would the density of the resulting liquid be?
10. An object has a mass of 57.7g and occupies a volume of 21.65cm³. Calculate its density.
11. A sample of a substance whose density is 4.19g/cm³ occupies .11cm³. What is the mass of this sample?
12. What is the volume of a 29.6g sample of a metal that is known to have a density of 5.15g/cm³?
13. If the density of silver is 10.5g/cm³, what is the mass of a sample of silver that occupies 965 cm³?
14. A certain gas under given conditions has a density of 1.34×10^{-4} g/cm³. What volume will 250g of this gas occupy under the same conditions?
15. An object is found to have a mass of 1.934kg and occupies a volume of 542cm³. Calculate its density in g/cm³?