

Density Worksheet

Name: _____

1. A 3.5mL chunk of boron has a mass of 8.19g. Calculate the density of the boron in g/mL.
2. A pure iron bar has a mass of 125g. If the density of iron is $7.86 \times 10^3\text{g/L}$, what is the volume of the iron bar in L, mL, and cm^3 ?
3. Beeswax has a density of 961g/L. If a block of beeswax has a volume of 200.0mL, what is the mass of the block in grams?
4. The noble gas neon is contained in a glass bulb having a volume of 22.4L. If the density of neon is 0.900g/L, what is the mass (g) of the neon in the bulb?
5. A 70.0g sphere of manganese (density = $7.20 \times 10^3\text{g/L}$) is dropped into a graduated cylinder containing 54.0mL of water. What volume of water will be displaced in mL?
6. The density of steel is 7.80g/cm^3 . If you have a 56cm^3 piece of steel, what is its mass (g)?
7. If the density of brick is 1.84g/cm^3 and the density of aluminum is 2.70g/cm^3 , what mass (g) of aluminum occupies the same volume as 150.0g of brick?
8. If the density of copper is $8.92 \times 10^3\text{g/L}$ and the density of magnesium is $1.74 \times 10^3\text{g/L}$, what mass (g) of magnesium occupies the same volume as 100.0g of copper?
9. Ice has a density of 0.92g/cm^3 . If it is put in 200.0mL of an unknown alcohol which has a mass of 190.3g, will the ice sink or float? Why?
10. If you increase the air pressure inside of a bottle, does the density of the air inside increase or decrease? Why?