

Density Lab Writing Sample #3

Abstract:

All substances have an inherent density which can be determined by taking the mass divided by volume. In this experiment it was demonstrated that the density can be determined by three different methods: (1) by obtaining the mass of an object and determining its volume by direct measurement or (2) by displacement, and (3) suspending an object in a fluid of equal density. In this lab, it was determined that the density of the metal spheres were 7.89 g cm^{-3} by direct measurement with the calipers and 8.50 g cm^{-3} by displacement. It was also determined that the density of a raw egg was more than that of the hardboiled egg, 1.10 g cm^{-3} and 1.01 g cm^{-3} , respectively. Overall, the direct measurement of the spheres was determined to give the more accurate density measurement (percent error = 2.03 %).