PRE-LABORATORY ASSIGNMENT
Spectrophotometry: Analysis of a Copper-Containing Solution

Name ____________________________ Section ____________

1. If 5.5 mL of a 0.16 molar copper solution is diluted by the addition of 4.5 mL of 1.0 molar HNO₃, what is the concentration of copper in the resulting solution?

Concentration of copper = __________mol/L

2. A 0.216 gram sample of an unknown copper compound is dissolved in 10.0 mL of 1 M HNO₃. If the concentration of copper in the resulting solution is found to be 0.090 mol/liter (a) what mass of copper was present in the original sample and (b) what was the weight percent of copper in the original sample?

Mass of copper = __________g

Weight percent copper in the sample = __________%