1. Five mineral samples of equal mass of Calcite, (MM 100.085) had a total mass of 10.1 ± 0.1g. What is the average mass of calcium in each sample? (Assume that the relative uncertainties in atomic mass are small compared the uncertainty of the total mass.)

2. A solution of HNO3 is standardized by reaction with pure sodium carbonate.

2H+ + → 2Na+ +H2O +

A volume of 25.77 ± 0.06 mL of solution was required for complete reaction with 0.8896 ± 0.0007g of Na2CO3, (FM 105.988 ± 0.001). Find the molarity of the and its absolute uncertainty.