PRACTICAL PROBLEMS

PROBLEM 1 (Practical)

The following solutions of salts are available in twelve numbered test-tubes: $AgNO_3$, $BaCl_2$, $(NH_4)_2CO_3$, NaCl, KI, $ZnCl_2$, NH_4Cl, $Pb(NO_3)_2$, $Al(NO_3)_3$, $CrCl_3$, $Cr(NO_3)_3$, $Hg(NO_3)_2$.

The numbering of the test tubes does not correspond to the order of the salts given above. Prove the content of the test tubes by means of the least number of operations. In your answer align the proper salt with each number of the test tube. Write chemical equations for the reactions.

PROBLEM 2 (Practical)

Six test tubes contain the following compounds:

Na_2CO_3	or	$NaHCO_3$	$NiCl_2$	or	$CuCl_2$
$AgNO_3$	or	$Pb(NO_3)_2$	$ZnCl_2$	or	$Al(NO_3)_3$
$ZnSO_4$	or	KI	NH_4NO_3	or	$Ba(NO_3)_2$

The numbers of the test tubes do not correspond to the order of the compounds. Prove the content of each test tube by available reagents. Describe the reactions by chemical equations.

PROBLEM 3 (Practical)

There are three test tubes marked by numbers 1, 2, and 3. Prove the content of each test-tube by means of available reagents and write the proper formula of the compound to each number. Write chemical equations for the reactions.
