Exercise 6a

Balancing equations

Balance the following equations.To get you started _ indicates the first six questions where numbers need to be inserted to achieve the balance. In one or two difficult examples some of the numbers have been added. You will not need to change these. Also remember all the formulae are correct!

1 $\_ H_2 + O_2 \rightarrow \_ H_2O$

2 $BaCl_2 + \_ NaOH \rightarrow Ba(OH)_2 + \_ NaCl$

3 $H_2SO_4 + \_ KOH \rightarrow K_2SO_4 + H_2O$

4 $K_2CO_3 + \_ HCl \rightarrow \_ KCl + H_2O + CO_2$

5 $CaCO_3 + \_ HNO_3 \rightarrow Ca(NO_3)_2 + H_2O + CO_2$

6 $Ca + \_ H_2O \rightarrow Ca(OH)_2 + H_2$

7 $Pb(NO_3)_2 + NaI \rightarrow PbI_2 + NaNO_3$

8 $Al_2(SO_4)_3 + NaOH \rightarrow Al(OH)_3 + Na_2SO_4$

9 $Al(OH)_3 + NaOH \rightarrow NaAlO_2 + H_2O$

10 $Pb(NO_3)_2 \rightarrow PbO + NO_2 + O_2$

11 $FeSO_4 \rightarrow Fe_2O_3 + SO_2 + SO_3$

12 $NH_4NO_3 \rightarrow N_2O + H_2O$

13 $NaNO_3 \rightarrow NaNO_2 + O_2$

14 $CH_4 + O_2 \rightarrow CO_2 + H_2O$

15 $C_4H_{10} + O_2 \rightarrow CO_2 + H_2O$

16 $PCl_3 + H_2O \rightarrow H_3PO_3 + HCl$

17 $8HNO_3 + 3Cu \rightarrow Cu(NO_3)_2 + NO + H_2O$

18 $4HNO_3 + Cu \rightarrow Cu(NO_3)_2 + NO_2 + H_2O$

19 $H_3PO_4 + NaOH \rightarrow NaH_2PO_4 + H_2O$

20 $H_3PO_4 + NaOH \rightarrow Na_3PO_4 + H_2O$