

## Chemistry 11

### Chemical Reactions

Balance the following equations. Remember: there is no need to write "1" in front the element or compound.

- a)  $\text{ZnCl}_2 + \text{AgNO}_3 \rightarrow \text{AgCl} + \text{Zn(NO}_3)_2$
- b)  $\text{FeCl}_2 + \text{NaOH} \rightarrow \text{Fe(OH)}_2 + \text{NaCl}$
- c)  $\text{NaO} + \text{H}_2\text{O} \rightarrow \text{NaOH} + \text{O}_2$
- d)  $\text{Cu} + \text{H}_2\text{SO}_4 \rightarrow \text{CuSO}_4 + \text{H}_2\text{O} + \text{SO}_2$
- e)  $(\text{NH}_4)_2\text{SO}_4 + \text{Ca(OH)}_2 \rightarrow \text{NH}_4\text{OH} + \text{CaSO}_4$
- f)  $\text{Fe}_2\text{S}_3 + \text{O}_2 \rightarrow \text{Fe}_2\text{O}_3 + \text{SO}_2$
- g)  $\text{Al}_2(\text{SO}_4)_3 + \text{NH}_4\text{OH} \rightarrow \text{Al(OH)}_3 + (\text{NH}_4)_2\text{SO}_4$
- h)  $\text{Cu}_2\text{O} + \text{Fe}_2\text{S}_3 \rightarrow \text{Cu}_2\text{S} + \text{Fe}_2\text{O}_3$
- i)  $\text{Al} + \text{HCl} \rightarrow \text{AlCl}_3 + \text{H}_2$
- j)  $\text{CO}_2 + \text{H}_2\text{O} \rightarrow \text{C}_6\text{H}_{12}\text{O}_6 + \text{O}_2$
- k)  $\text{H}_2 + \text{Fe}_3\text{O}_4 \rightarrow \text{H}_2\text{O} + \text{Fe}$
- l)  $\text{MnO}_2 + \text{HCl} \rightarrow \text{H}_2\text{O} + \text{MnCl}_2 + \text{Cl}_2$
- m)  $\text{Ba(ClO}_3)_2 + \text{H}_2\text{SO}_4 \rightarrow \text{BaSO}_4 + \text{HClO}_3$
- n)  $\text{Ca}_3\text{P}_2 + \text{H}_2\text{O} \rightarrow \text{Ca(OH)}_2 + \text{PH}_3$
- o)  $\text{C}_2\text{H}_6 + \text{O}_2 \rightarrow \text{CO}_2 + \text{H}_2\text{O}$
- p)  $\text{Cl}_2 + \text{CrBr}_3 \rightarrow \text{Br}_2 + \text{CrCl}_3$
- q)  $\text{F}_2 + \text{NaOH} \rightarrow \text{O}_2 + \text{NaF} + \text{H}_2\text{O}$
- r)  $\text{Al}_2(\text{SO}_4)_3 + \text{NH}_3 + \text{H}_2\text{O} \rightarrow \text{Al(OH)}_3 + (\text{NH}_4)_2\text{SO}_4$