

Name:

Surname:

Group:

### Report of experiment 3

#### Introduction

.....  
.....  
.....  
.....  
.....  
.....

#### The objective of the experiment

.....  
.....  
.....  
.....

If the results of the experiment are recorded in the table answer the following questions

Experiment	Mass of Cold Water $m_1$ (g)	Mass of Product $m_2$ (g)	Temperature of Cold Water $T_1$ (K)	Equilibrium Temperature $T_{f(\text{exp})}$ (K)
(KOH)	100.56	5.69	373.1	298.9
(NH <sub>4</sub> Cl)	100.17	5.32	292.7	290.1

1. Calculate the number of moles of KOH

.....  
.....  
.....  
.....

2. Calculate the number of moles of NH<sub>4</sub>Cl

.....  
.....  
.....  
.....

3. Calculate  $Q_{\text{KOH}}$

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

4. Calculate  $Q_{\text{NH}_4\text{Cl}}$

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

5. Calculate the enthalpy  $\Delta H_{\text{KOH}}$

.....  
.....  
.....

6. Calculate the enthalpy and  $\Delta H_{\text{NH}_4\text{Cl}}$

.....  
.....  
.....

7. Predict the dissolution reaction type for KOH and  $\text{NH}_4\text{Cl}$

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

8. Conclusion

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....