Provide the products, starting material or reagents (more than one step perhaps) for the following reactions. Indicate which products are major and which are minor. Be able to draw the resonance structures for the intermediates to explain your predictions.

1. \( \text{H}_2\text{SO}_4, \text{HNO}_3 \)
2. \( \text{SnCl}_2, \text{H}_3\text{O}^+ \)
3. \( \text{HO}^- \)

1. \( \text{H}_2\text{SO}_4, \text{HNO}_3 \)
2. \( \text{SnCl}_2, \text{H}_3\text{O}^+ \)
3. \( \text{HO}^- \)
4. \( \text{NaNO}_2, \text{H}_2\text{SO}_4 \) (lab!)  
5. \( \text{H}_2\text{O}, \text{heat} \)

1. \( \text{AlCl}_3 \)
2. \( \text{H}_2\text{SO}_4, \text{HNO}_3 \)
3. \( \text{SnCl}_2, \text{H}_3\text{O}^+ \)
4. \( \text{NaNO}_2, \text{H}_2\text{SO}_4 \) (lab!)  
5. \( \text{H}_2\text{O}, \text{heat} \)
6. \( \text{Cl}_2, \text{FeCl}_3 \)