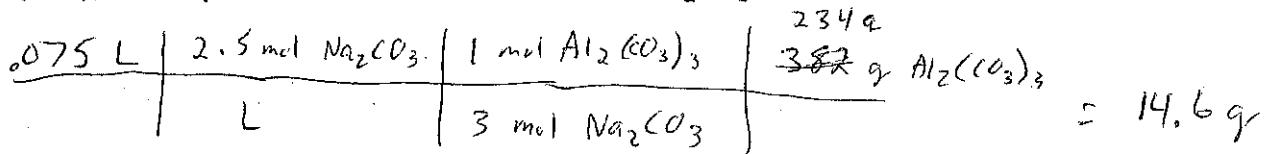
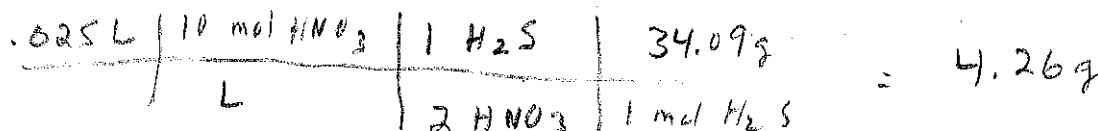


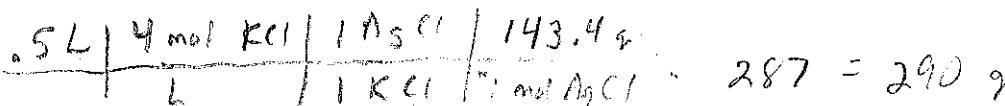
10.  $3 \text{Na}_2\text{CO}_3(\text{aq}) + 2 \text{AlCl}_3(\text{aq}) \rightarrow 6 \text{NaCl}(\text{aq}) + \text{Al}_2(\text{CO}_3)_3(\text{s})$  How many grams of  $\text{Al}_2(\text{CO}_3)_3$  can be produced from 75.0 mL of 2.50 M  $\text{Na}_2\text{CO}_3$ ?



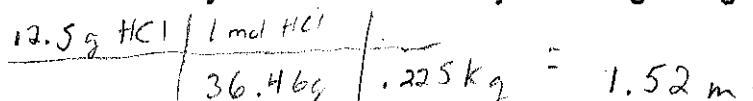
11. For the reaction:  $\text{K}_2\text{S}(\text{aq}) + 2 \text{HNO}_3(\text{aq}) \rightarrow 2 \text{KNO}_3(\text{aq}) + \text{H}_2\text{S}(\text{g})$   
What mass of  $\text{H}_2\text{S}$  can be produced from 25.0 mL of 10.0 M  $\text{HNO}_3$ ?



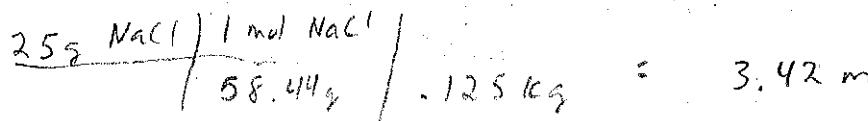
12. For the rxn:  $\text{KCl}(\text{aq}) + \text{AgNO}_3(\text{aq}) \rightarrow \text{AgCl}(\text{s}) + \text{KNO}_3(\text{aq})$ , how many grams of  $\text{AgCl}$  can be produced from 0.50 L of 4.0 M  $\text{KCl}(\text{aq})$ ? a) 1144; b) 286; c) 17.9; d) 358



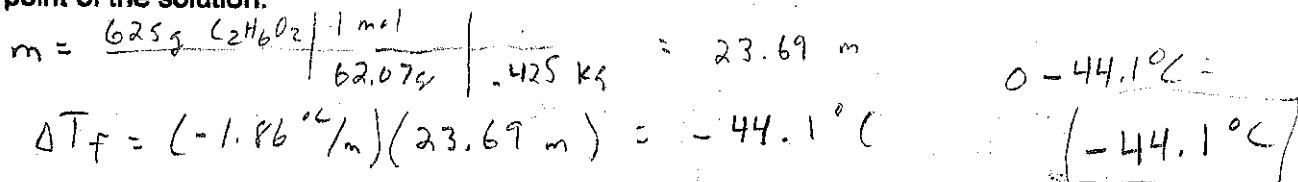
13. What is the molality of a solution made by dissolving 12.5 g of HCl in 225 g of water?



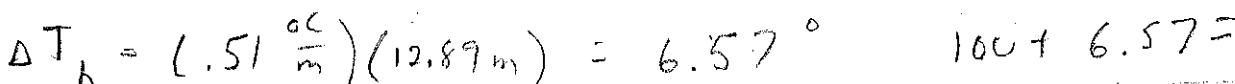
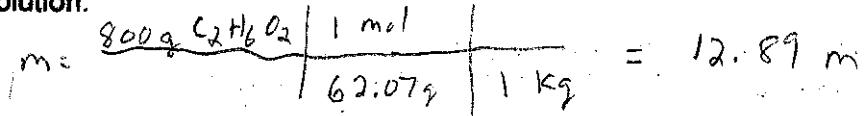
14. 25.0 grams of NaCl is dissolved in 125 grams of water. What is the molality of the solution?



15. A solution is made by dissolving 625 g of  $\text{C}_2\text{H}_6\text{O}_2$  (a nonelectrolyte) in 425 g of water. The molal freezing point constant ( $K_f$ ) for water is  $-1.86 \text{ }^\circ\text{C}/\text{m}$ . Calculate the freezing point of the solution.



16. A solution is made by dissolving 800. g of  $\text{C}_2\text{H}_6\text{O}_2$  in 1.00 kg of water. The molal boiling point constant ( $K_b$ ) for water is  $0.51 \text{ }^\circ\text{C}/\text{m}$ . Calculate the boiling point of the solution.



$\boxed{106.6 \text{ }^\circ\text{C}}$