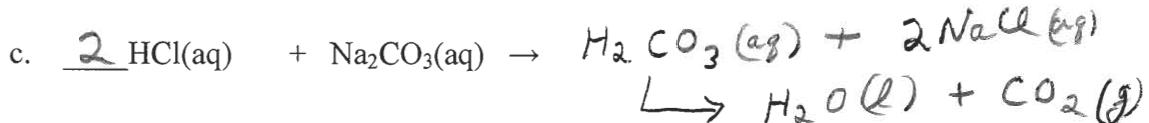
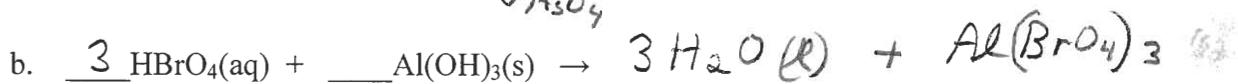
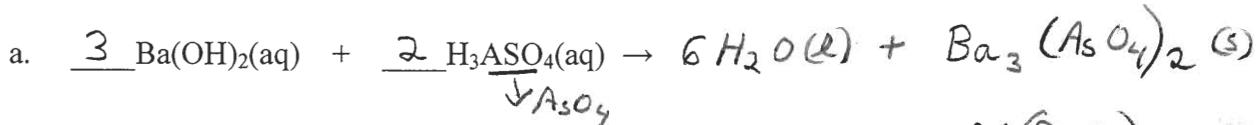


SHOW ALL WORK TO RECEIVE CREDIT.

Atomic masses: H 1.008, C 12.01, Na 22.99, P 30.97, S 32.07, O 16.00, K 39.01

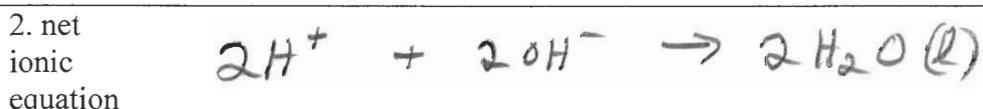
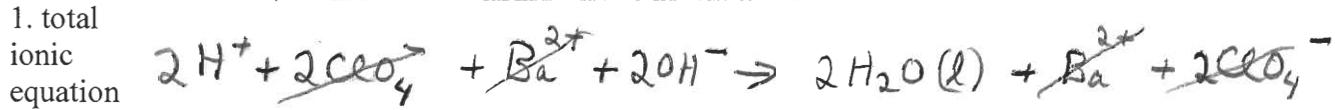
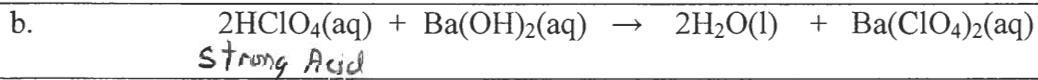
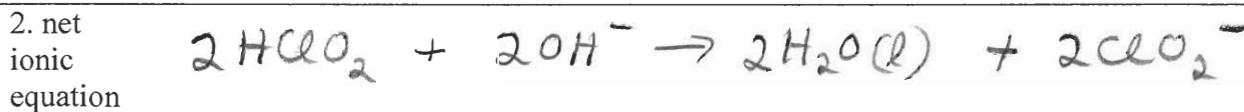
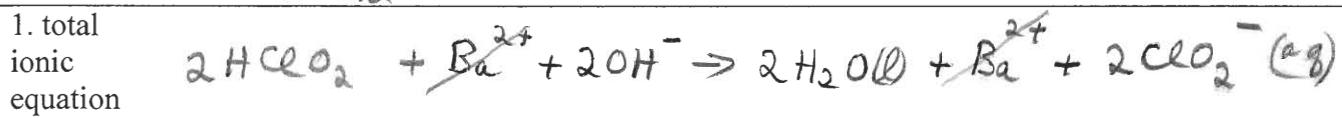
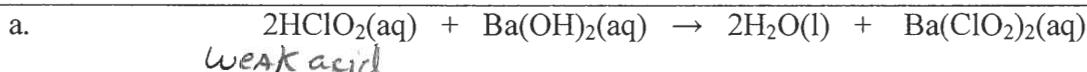
1. (9 Pts) Complete and balance each of the following reactions:2. (4 Pts) How many grams of  $\text{Na}_3\text{PO}_4$  are needed to prepare 700 mL of 3.00 M  $\text{Na}_3\text{PO}_4$  solution?

$$\frac{700 \text{ mL}}{1000 \text{ mL}} \left| \begin{array}{c} \text{Na}_3\text{PO}_4 \\ 3.00 \text{ mol Na}_3\text{PO}_4 \end{array} \right| \frac{163.94 \text{ g}}{\text{mol}} = 344 \text{ g Na}_3\text{PO}_4$$

3. (4 Pts) How many grams of  $\text{Na}_3\text{PO}_4$  are in 445 mL of 3.00 M  $\text{Na}_3\text{PO}_4$  solution?

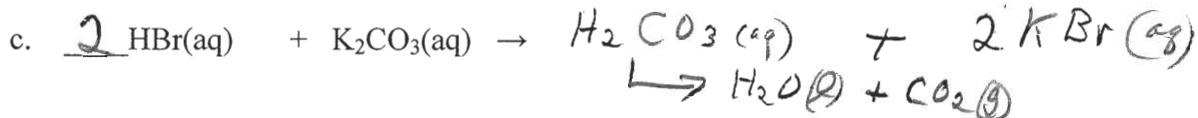
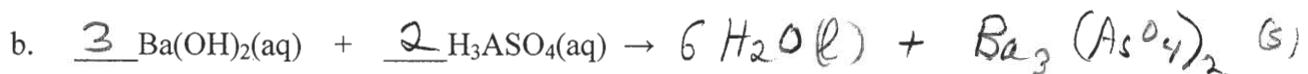
$$\frac{445 \text{ mL}}{1000 \text{ mL}} \left| \begin{array}{c} 3.00 \text{ mol Na}_3\text{PO}_4 \\ \text{Na}_3\text{PO}_4 \end{array} \right| \frac{163.94 \text{ g}}{\text{mol}} = 219 \text{ g Na}_3\text{PO}_4$$

4. (8 Pts) Write the total ionic and net ionic equations for each of the following.



SHOW ALL WORK TO RECEIVE CREDIT.

Atomic masses: H 1.008, C 12.01, Na 22.99, P 30.97, S 32.07, O 16.00, K 39.01

1. (9 Pts) Complete and balance each of the following reactions:2. (4 Pts) How many grams of K<sub>3</sub>PO<sub>4</sub> are needed to prepare 700 mL of 3.00 M K<sub>3</sub>PO<sub>4</sub> solution?

$$\frac{700 \times 10^{-3} \text{ L}}{1 \text{ L}} \left| \begin{array}{c} 3.00 \text{ mol K}_3\text{PO}_4 \\ \hline \end{array} \right| \frac{212.2}{\text{mol}} = 445 \text{ g K}_3\text{PO}_4$$

3. (4 Pts) How many grams of K<sub>3</sub>PO<sub>4</sub> are in 445 mL of 3.00 M K<sub>3</sub>PO<sub>4</sub> solution?

$$\frac{445 \times 10^{-3} \text{ L}}{1 \text{ L}} \left| \begin{array}{c} 3.00 \text{ mol K}_3\text{PO}_4 \\ \hline \end{array} \right| \frac{212.2}{\text{mol}} = 283 \text{ g K}_3\text{PO}_4$$

4. (8 Pts) Write the total ionic and net ionic equations for each of the following.

