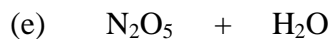
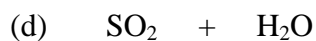
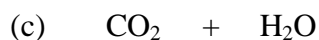
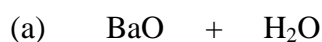


This quiz is take-home and open book, and it is intended that all members of the group contribute to completing it. It is a violation of the Academic Honor Code to sign a quiz that you did not work on. **The quiz is due at the end of class on Thursday, April 1.**

List names in alphabetical order, and give social security numbers! Put names on all pages, and staple pages together

Points

(5) 1. Write complete and balanced equations for the reactions of the following oxides with water:



(2) 2. Write the nuclear reaction for the **alpha decay** of the following isotopes:

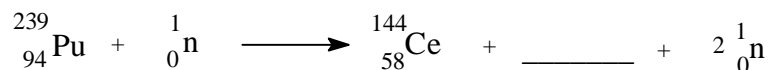
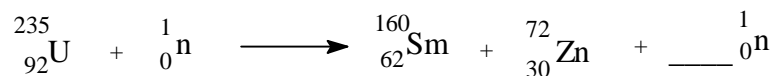
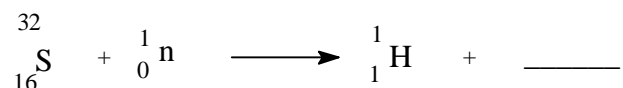


List names in alphabetical order. **Be sure to staple pages together!**

- (2) 3. Write the nuclear reaction for the **beta decay** of the following isotopes:



- (3) 4. Fill in the blanks in the following nuclear reactions:



- (3) 5. You have a pool that is 15 m long by 5 m wide by 2 m deep. To your horror, you discover its pH is 3.0! You decide to try to neutralize it with lime (CaO). Write the equation for the neutralization reaction, and calculate the mass of CaO you would require to raise the pH from 3.0 to 7.0.