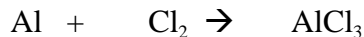
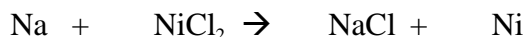


Due: Friday, October 29

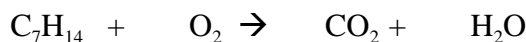
1. Balance the following reaction:



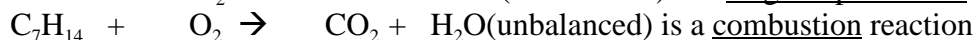
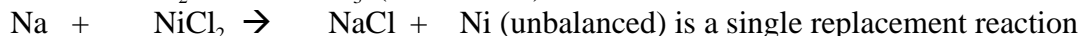
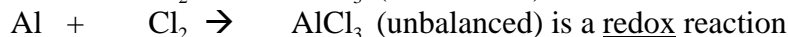
2. Balance the following reaction:



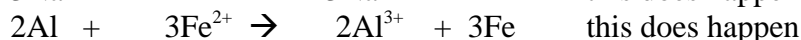
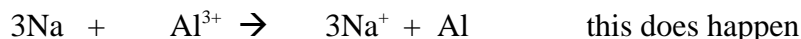
3. Balance the following reaction:



4. Which of the following statements is false:



5. Shown below are two reactions which are favorable and really happen. Which of the following statements would be false?



- Aluminum loves electrons more than does sodium. If one of the two is going to be cationic, it's better for sodium to be cationic than for aluminum to be cationic.
- Aluminum loves electrons more than does iron. If one of the two is going to be cationic, it's better for iron to be cationic than for aluminum to be cationic.
- If elemental sodium was put in contact with Fe^{2+} , it's likely that sodiums would transfer electrons so that iron would become neutral and sodium would become cationic, since sodium seems to be most willing to be cationic and iron least willing
- In terms of "activity" as electron givers, the pattern (for the neutral elements) would be $\text{Na} > \text{Al} > \text{Fe}$

6. What is the molar mass for Na_2O (three sig figs is enough)?

7. What is the molar mass for $\text{Ca}(\text{NO}_3)_2$?

8. How many hydrogen atoms would be present in 10.0 g of H_2O ? (In actual scientific notation, not in moles)

9. If you have 14g of H_2O , how many moles of H_2O would you have?

10. If you have 2.6 moles of iron(II) nitrate, how many grams of iron(II) nitrate would you have? (show work)

11. Write out and balance the reaction between elemental sodium and Br_2 ? If you put in 15 grams of sodium, how many moles of Br_2 would react, and how many moles of NaBr would be produced? (Show work)

12. Write out and balance the reaction for the combustion of C_4H_8 . If you combust 25 grams of C_4H_8 , how many grams of CO_2 would form? (Show work)

Did you remember to write your name on the front?