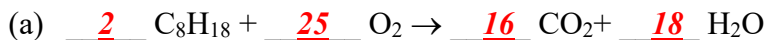


Chemistry Review #2
Balancing, Types of Reactions, Acids and Bases

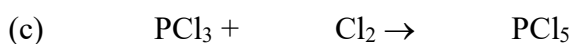
1. Balance and identify the type of each of the following reactions.



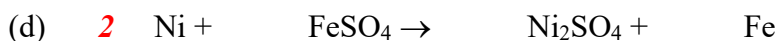
Reaction type: combustion



Reaction type: double displacement/replacement



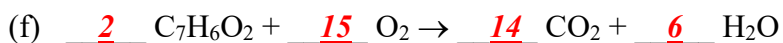
Reaction type: synthesis



Reaction type: single displacement/replacement



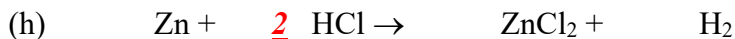
Reaction type: decomposition



Reaction type: combustion



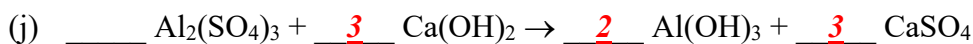
Reaction type: decomposition



Reaction type: single displacement/replacement



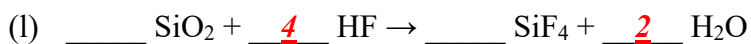
Reaction type: synthesis



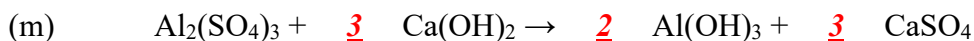
Reaction type: double displacement/replacement



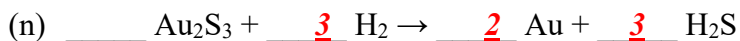
Reaction type: synthesis



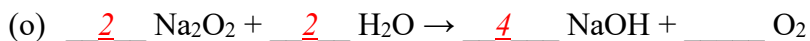
Reaction type: double displacement/replacement



Reaction type: double displacement/replacement



Reaction type: single displacement/replacement



Reaction type: double displacement/replacement

2. List the properties of acids and bases.

| properties of acids | properties of bases |
|--|--|
| <u>taste sour</u> <u>react with most metals to produce hydrogen gas</u> <u>have a pH less than 7</u> <u>contain hydrogen ions</u> | <u>tastes bitter</u> <u>feels slippery</u> <u>has a pH greater than 7</u> <u>contain hydroxide ions</u> |

3. What element do all acids contain?

Hydrogen

4. Acids have a pH of less than 7.
5. Bases have a pH of greater than 7.
6. Explain how you can use litmus paper to determine if an unknown liquid is an acid or a base.

Place red and blue litmus paper in the liquid. If both turn red it is an acid. If both turn blue, it is a base.

7. Explain what is meant by a neutralization reaction.

An acid is combined with a base to produce a salt and water.

8. Indicate if each of the following is an acid or a base.

| Substance | Red Litmus | Blue Litmus | pH | Acid or Base |
|--------------|------------|-------------|----|--------------|
| coffee | red | red | 5 | <i>acid</i> |
| milk | red | red | | <i>acid</i> |
| oven cleaner | | | 13 | <i>base</i> |
| hand soap | blue | blue | | <i>base</i> |