

Non Sibi High School

Andover's Chem 300: Accelerated/Honors Chemistry

Chapter 10, Review Quiz 1

1

Write a balanced equation for the combustion of each compound below using the smallest possible whole-number coefficients:

- a. butane
- b. pentanol

2

Write a balanced equation for each reaction described below using the smallest possible whole-number coefficients:

- a. lithium oxide reacts with water
- b. potassium carbonate decomposes upon heating
- c. aluminum metal reacts with chlorine gas
- d. cesium metal reacts with water

3

What is the molarity of each ion in the following solutions?

- a. 0.032 M CrCl_3
- b. 0.12 M $(\text{NH}_4)_2\text{SO}_4$

4

Only one of the following two solution mixtures will react to form a precipitate. Indicate which combination yields no reaction and also write a balanced net ionic equation, including states of matter, for the combination that does yield a precipitate:

- a. $\text{Cu}(\text{NO}_3)_2(\text{aq}) + \text{K}_3\text{PO}_4(\text{aq})$

b. aqueous lithium chloride + aqueous ammonium bromide

5

Write a balanced molecular equation, including states of matter, for the reaction between solutions of sulfuric acid and potassium hydroxide.

6

How many milliliters of 0.117 M strontium hydroxide are required to titrate 32.5 mL of 0.146 M acetic acid?



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Contact: kcardozo@andover.edu