

Be sure to show all work, use the correct number of significant figures, circle final answers and use correct units in all problems.

1. Write and balance the following reactions: (14 points)

- a. Calcium iodide is formed from its elements

- b. Molybdenum(III) selenide decomposes to its elements

- c. Combustion of butane, C_4H_{10} .

- d. Gallium reacts with a solution of zinc(II) nitrate.

- e. A bright white precipitate forms when solutions of silver(I) nitrate and potassium iodide react.

- f. Sodium hydroxide neutralizes hydrochloric acid.

2. Classify each of the above reactions: (1 point each)

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| a. | d. |
| b. | e. |
| c. | f. |