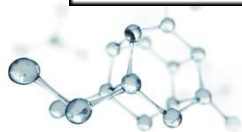


Name:

Date:



Stoichiometry WS #1

Directions: If necessary, balance the chemical reactions. Use Stoichiometry to solve the following problems. Show all work with units. Box the final answer.

Equation for questions 1-4: $\text{Al (s)} + \text{O}_2 \text{ (g)} \rightarrow \text{Al}_2\text{O}_3 \text{ (s)}$

1. How many moles of aluminum oxide would form if 12.5 moles of aluminum burned?
2. How many grams of oxygen gas are needed to react with 7.5 moles of aluminum?
3. How many liters of oxygen gas are needed to react with 100.0 grams of aluminum at STP?
4. How many grams of aluminum burned if 200.0 grams of aluminum oxide formed?

Equation for questions 5-8: _____ C_3H_8 (g) + _____ O_2 (g) $\rightarrow$ _____ CO_2 (g) + _____ H_2O (g)

5. How many moles of carbon dioxide will form if 5.5 moles of C_3H_8 is burned

6. If 30.0 moles of oxygen gas are used, how many grams of water will form?

7. If 100.0 grams of C_3H_8 burns, how many moles of carbon dioxide will form?

8. How many grams of oxygen gas are needed to burn 5.0 moles of C_3H_8 ?