

Introduction to Chemistry
Quiz 7c

Name: _____
Date: _____

Mole, Molar Mass, Stoichiometry

1. Circle the one in each pair represents a greater number of items

a) 5 dozen mole of lithium atoms or 60 mole of sulfur atoms

b) 0.75 mole of cars or 4.5×10^{23} cars

c) 7701 baseballs or 7.710×10^3 baseballs

2. **Calculate** the molar mass, and **name** this chemical: $\text{Ru}_2(\text{SO}_4)_3$

3. An amount of 0.1820 mol of $\text{Ru}_2(\text{SO}_4)_3$ is how many grams?

4.) Given the balanced chemical reaction: $\text{N}_2 + 3\text{H}_2 \rightarrow 2\text{NH}_3$, how many moles of nitrogen gas would be needed to react with 8.64 moles of hydrogen gas?

5) How many grams of hydrogen gas is the 8.64 moles given in Question 4?

6) How many moles of ammonia could be produced by the reaction in Question 4? How many grams of ammonia is that?

Fold quiz with your work inside, then write your name on the outside.