

Monday 2/2 - Check In

Write on an index card how you are feeling about life and world events. I will allow 5 minutes of uninterrupted writing. You have 2 choices:

1. Put your card in my sink where I will burn it in front of you
2. Turn it into the box if you want me to read it.

Tuesday 2/3 – Writing & Balancing Chemical Equations

Directions: Read the word problem. **Write and balance the chemical equation** in the **same order** as the words.

Problem:

Solid **aluminum** reacts with **oxygen gas** to form **aluminum oxide**.

1. Write the **unbalanced equation**:

2. Write the **balanced equation**:

Wednesday 2/4 – Counting Atoms → Molar Mass → Grams

Directions: Answer all parts.

Molar masses are rounded to the 2nd decimal place!!

Problem:

2.5 moles of calcium nitrate, $\text{Ca}(\text{NO}_3)_2$, are used in a reaction.

A. Count the atoms in $\text{Ca}(\text{NO}_3)_2$

- Ca: _____
- N: _____
- O: _____

B. Calculate the molar mass of $\text{Ca}(\text{NO}_3)_2$

- Ca = 40.01
- N = 14.01
- O = 16

Molar mass = _____ g/mol

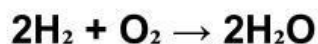
C. Convert moles to grams

Mass = _____ g

Thursday 2/5 – Mole Ratios & Stoichiometry

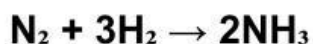
Directions: Write the **mole ratio**, then **solve**.

Problem 1



How many moles of **water** are produced from **3.0 moles of oxygen**?

Problem 2



How many moles of **hydrogen gas** are needed to produce **4.0 moles of ammonia**?

Friday 2/6 – Weekly Check-In Review

Directions: Complete all parts to show your understanding from this week.

Problem

Magnesium metal reacts with HCl to produce magnesium chloride and hydrogen gas.

A. Write and balance the equation (in word order):

B. Count atoms in MgCl_2

- Mg: _____
- Cl: _____

C. Calculate the molar mass of MgCl_2

- Mg = 24.31
- Cl = 35.45

Molar mass = _____ g/mol

D. Stoichiometry

Using the balanced equation, how many **grams of MgCl_2** are produced from **2.0 moles of Mg**?