

Name: _____
Period: _____

Stoichiometry Pre-Test

Show all work. Write the correct answers in the boxes provided with proper units.

- Use the equation to answer the following questions: $\text{Mg} + 2\text{HCl} \rightarrow \text{MgCl}_2 + \text{H}_2$
 - If 4.67 moles of MgCl_2 are produced, how many moles of HCl were used?

 - If 1.4×10^{24} molecules of H_2 are produced, how many moles of Mg were used?

- $5\text{C}_{(s)} + 2\text{SO}_{2(g)} \rightarrow \text{CS}_{2(l)} + 4\text{CO}_{(g)}$

How many liters of carbon monoxide (@STP) are produced if 54.7 grams of CS_2 are produced?

- $\text{H}_2\text{SO}_4 + 2\text{NaOH} \rightarrow 2\text{H}_2\text{O} + \text{Na}_2\text{SO}_4$

If 350 mL of a 0.700 M solution of H_2SO_4 is used in the reaction, how many grams of water will be produced?

4. $6\text{HCl} + 2\text{Al} \rightarrow 2\text{AlCl}_3 + 3\text{H}_2$
- If 345.5 grams of HCl and 151.6 grams of Al are used in the reaction, determine which is the limiting reactant?
 - How much excess is leftover?
5. If you make 46.8g of calcium carbonate by reacting 87.5g of calcium nitrate with plenty of sodium carbonate, what is your percent yield of calcium carbonate?
6. If the student only yielded 65.9% of Calcium Carbonate, what mass did they actually produce using the same starting masses from #5?
7. Suppose a student wants to make a 0.564M solution of Calcium Phosphate, what volume of the solution must they dilute to in order to use 137.4grams of the solute?
8. After taking this test, do you feel prepared for the real test tomorrow?

I need all the
help I can get!

I will be ok with
my mole map!

I've got
this!

1

2

3

4

5