

Name: _____

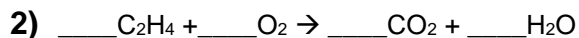
Period: _____

Seat#: _____

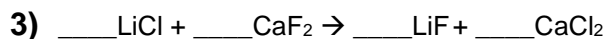
- Show work and include ALL units.
- Use a SINGLE DIMENSIONAL ANALYSIS line method set ups for ALL conversions.



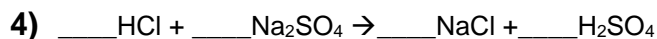
If you start with 23.4 g of lithium hydroxide, how many grams of water will be produced?



If you start with 12.78 grams of ethylene (C₂H₄), how many moles of oxygen are required to complete burn 100%? How many grams of carbon dioxide will be produced?



If you ended with 10.45 grams of Calcium chloride, how many grams of Lithium chloride did you start with?



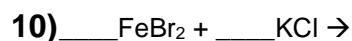
If you start with 15.40 grams of sodium sulfate, how many grams of each of the products will be produced?

Dougherty Valley HS Chemistry
Stoichiometry – Basic Stoichiometry

- 5) $\text{AgNO}_3 + \text{NaCl} \rightarrow \text{AgCl} + \text{NaNO}_3$ [balanced]
26.3 g of silver (I) nitrate is reacted with an excess of sodium chloride to produce silver(I) chloride and sodium nitrate. What mass of sodium nitrate is produced?
- 6) $\text{HCl} + \text{NaOH} \rightarrow \text{H}_2\text{O} + \text{NaCl}$ [balanced]
60.4 g of HCL is mixed with excess NaOH to produce water and table salt. What mass of NaCl is produced?
- 7) $\text{AgNO}_3 + \text{AlCl}_3 \rightarrow \text{AgCl} + \text{Al(NO}_3)_3$
Calculate the mass of Aluminum Nitrate that can be prepared from 122.45 g of AlCl_3 and excess AgNO_3 .
- 8) $\text{Na} + \text{Cl}_2 \rightarrow \text{NaCl}$
How many grams of Chlorine are required to react completely with 75.0 grams of sodium using this reaction above? How many grams of product can be formed from this reaction?

Dougherty Valley HS Chemistry
Stoichiometry – Basic Stoichiometry

- 9) $\text{C}_6\text{H}_6 (\text{l}) + \text{Cl}_2 (\text{g}) \rightarrow \text{C}_6\text{H}_5\text{Cl} (\text{s}) + \text{HCl} (\text{g})$ [balanced]
When 41.5 g of C_6H_6 react with an excess of Cl_2 , the actual yield of $\text{C}_6\text{H}_5\text{Cl}$ is 38.8 g.
What is my theoretical yield? What is the percent yield?



What is my theoretical yield of iron (II) chloride if I start with 68.0 grams of iron (II) bromide?
What is my percent yield of iron (II) chloride if my actual yield is 2.0 grams?

- 11) Lithium Hydroxide + Potassium Chloride

I began this reaction with 20.0 grams of lithium hydroxide. What is my theoretical yield of lithium chloride?
I actually produced 6.00 grams of lithium chloride. What is my percent yield?