

Name: _____

Section: _____

Report Form – Gas Stoichiometry

Part I – Sample Data for Mass of Zinc

Chemical Reaction		
DATA COLLECTED		
Volume of hydrogen collected*	81.5 mL	L
Temperature of hydrogen*	22.0 °C	K
Barometric pressure*	29.98 in Hg	mm Hg
Height of solution in eudiometer from benchtop	19.2 cm	
Height of solution in beaker from benchtop	10.0 cm	
CALCULATIONS AND RESULTS		
Difference in liquid levels of solution in eudiometer and beaker*		
Aqueous vapor pressure at temperature of hydrogen	mm Hg	
Pressure caused by acid column: (Difference in cm)*(0.772 mm Hg/cm)	mm Hg	
Pressure of hydrogen alone*	mm Hg	atm
Moles of hydrogen*	moles	
Moles of zinc*	moles	
Mass of zinc (calculated)*	g	

Show the calculations for each of the entries in the Data Table marked with * on the calculations page.

Question: If the mass of zinc used was 0.21 g, what is the percent error for your calculated mass of zinc? Show your work below.

Name: _____

Section: _____

Part II – Mass of Magnesium

Chemical Reaction		
DATA COLLECTED		
Unknown number		
Volume of hydrogen collected*	mL	L
Temperature of hydrogen*	°C	K
Barometric pressure*	inches Hg	mm Hg
Height of solution in eudiometer from benchtop	cm	
Height of solution in beaker from benchtop	cm	
CALCULATIONS AND RESULTS		
Difference in liquid levels of solution in eudiometer and beaker*	cm Acid Solution	
Aqueous vapor pressure at temperature of hydrogen	mm Hg	
Pressure caused by acid column: (Difference in cm) * (0.772 mmHg/cm)	mm Hg	
Pressure of hydrogen alone*	mm Hg	atm
Moles of hydrogen*	moles	
Moles of magnesium*	moles	
Mass of magnesium*	g	

Show the calculations for each of the entries in the Data Table marked with * on the calculations page.

Calculations

Show the calculations for each of the entries in the Data Table marked with * below.