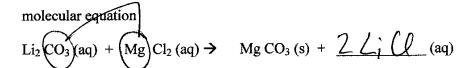
Quiz IV General Chemistry I Lectur			
Name Ky (print name)	Name		
(print name)	(sign name	e)	
Please show all work for full credit &	for partial credit for all q	uestions.	
1. Complete the following precip	itation reaction by filling	in each blan	k with an ion or molecule. (5 pts)
molecular equation			
Na ₂ SO ₄ (aq) + Ba Cl ₂ (aq) $\rightarrow 2Na$	<u>1 (</u> (aq) + Ba SO ₄ ((s)	
ionic equation			
$2Na^{+}(aq) + SO_4^{2}(aq) + Ba$	$\frac{+2}{2} (aq) + 2 Cl \rightarrow 2$	<u>a804</u> (s) -	+ 2 Na ⁺ (aq) + 2 Cl ⁻ (aq)
2. Circle the following which are	strong acids. (5 pts)		
(HNO ₃) H F H Cl	СН3СООН	H_2SO_4	
3. Assign oxidation state of the S	in SO_4^{-2} (oxygen has o	x state = -2)(show work). (4 pts)
5+4(-2)			
S = -2 + S	-8 + 6		•
4. If you have 2.2 moles of a gas $[PV = nRT, R=0.08206 (L atm)/(mol)]$			at is the pressure in atmospheres.
reality.) (6 pts)		-> SC	1.2 mlx - 1000ml = 0.5012
N= 2,2 moles V= 501,2 ml ->	Converted!	7	2018 of Vana Ved
T= 278,2K	(22)	$\left(\frac{0.08}{100}\right)$	206,218,218
V= 501, 2me -> T= 278,2K P=1 P= nRT	= (212,40)	0.50	128
P= 100.	2 -> 2 sigf	y ->	1.0×10^2 outm.
EC (3 pts): If the total pressure of N_2 the pressure of the N_2 ? Ptot $=$	(g) and H ₂ (g) is 1.2 atr	n and the pres	ssure of H ₂ is 0.8 atm, what is
	Ptot - Ph		

Quiz IV	General Chemistry I	Lecture	Fall 13	Dr. Hahn	20 pts	10/16 W	9:30 am Form B	クellow quiz#
Name	Kly			_ Name _				

(print name) O (sign name)

Please show all work for full credit & for partial credit for all questions.

1. Complete the following precipitation reaction by filling in each blank with an ion or molecule. (5 pts)



ionic equation

$$2 \operatorname{Li}^{+}(aq) + \frac{\text{O}_{5}(aq)}{\text{O}_{5}(aq)} + \operatorname{Mg}^{+2}(aq) + \frac{\text{O}_{7}(aq)}{\text{O}_{7}(aq)} + \frac{\text{O}_{7}(aq)}{\text{O}_{7}($$

2. Circle the following which are weak acids (5 pts)

HNO₃ H Cl CH₃COOH H₂SO₄

3. Assign oxidation state of the S in SO₃⁻² (oxygen has ox state = -2)(show work).(4 pts) S + 3(-2) = -2 S = -2 + 6 = +4

4. If you have 4.1 moles of a gas in 378.2 mL volume at 178.1 K, what is the pressure in atmospheres. [PV = nRT, R=0.08206 (L atm)/(mol K)] (I made up these numbers so the

atmospheres. [PV = nRT, R=0.08206 (L atm)/(mol K)] (I made up these numbers so the numbers have no relation to reality.) (6 pts)

$$N = 4.1 \text{ mol}$$
 $V = 318.2 \text{ ml}$
 $V = 318.2 \text{ ml}$
 $V = 178.1 \text{ k}$
 $V = 178.1 \text{$

EC (3 pts): If the total pressure of O_2 (g) and N_2 (g) is 1.7 atm and the pressure of N_2 is 1.0 atm, what is the pressure of the O_2 ? $P_{COL} = P_{OL} + P_{NL}$

Name	Kly	Nam	ne	
(print	name) 0	(sign	n name)	
Please	show all work for full	credit & for partial credit for	or all questions.	
1	Complete the followi	ng Acid Base reaction by fi	lling in the blanks. (5 pts, 2.5 pts	each)
		0 (10)	011 0	
2 H N	$O_3 + Ba (OH)_2 \rightarrow$	Ba (ND)2 + _	2120	
2. pts)	Circle the following	which are strong bases. (Ass	sume everything is completely so	luble in water) (5
NH ₃	Na OH (Ba (OH) ₂ NH ₄ OH	KOH	
3.			n has ox state = -2) (show work).	(4 pts)
	P+4(-	2) = -3		
	P = -3 +	8=+5		
that th	oressure, 298 K, with a ne volume of the gas be	an initial volume of 1.78 Litecomes 0.98 Liters at a temp	on engine which contains a mixture ters. If the piston in the gas cylinderature of 320 K, what is the new that the numbers have no relation	nder is pushed in so w pressure?
Pi	= 1,00 atm = 298K	P2 V2 = T2 -	$\frac{O_5\left(\frac{P_2V_2}{P_1V_1} = \frac{T_2}{T_1}\right)}{\frac{T_2}{T_1}}$	solvefor Pz-alger
V.	= 1,789	$P_2 = \left(\frac{T_2}{T_1}\right)^{p_1}$	$\frac{V_1}{2} = (320)(1.6)$	00atm)(1,78
	2 = 0, 982	$\langle T \rangle V_2$	(2984)(0,	98%
7	2= 12019	Pa = 19501	fm) 2 sigfig	<i>(</i>
D	2 = (2-111000	2.0 atm	L
1 /	pts): If a gas is collected			vater pressure is 5.0
EC (3		of the gas?	- Poac - D.	0
	lg, what is the pressure	0 40	745 - This	- 94 a
	ig, what is the pressure	Pgas + Pmo	al pressure is 722 mm Hg, if the way $=$ $P_{404} = P_{404} = P_{405} = 722 \text{ mm/Hg}$	THO 5 M U.

Quiz IV General Chemistry I Lecture Fall 13 Dr. Hahn	20 pts 10/16 W 10:30 am Form B Quiz#
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Name (print name) Name (sign r	ame)
Please show all work for full credit & for partial credit for	all questions.
1. Complete the following Acid Base reaction by filling	ng in the blanks. (5 pts, 2.5 pts each)
CH3-C-O-H + Na OH > CH3-C-O Na +	40
2. Circle the following which are weak bases (you sho in water) (5 pts)	ould assume that everything is completely soluble
NH ₃ Na OH Ba (OH) ₂ NH ₄ OH	КОН
Assign oxidation state of the N in NO ₃ (oxygen has $N + 3(-2) = -1$	as ox state = -2)(show work). (4 pts)
N= -1+6=+5	
$V_{2} = 10.71$ $P_{2} = (3.25K)(5)$ $T_{2} = 323K$ $(3.25K)(1)$	If the piston in the gas cylinder is pushed out so rature of 323K, what is the new pressure? At the numbers have no relation to reality.) (6 pts) For easier algebra Solve $P_2 = \frac{T_2 P_1 V_1}{T_1 V_2}$ 22 atm) (5,25%)
EC (3 pts) If a gas is collected over water, and the total torr, what is the pressure of the gas? $P_{total} = P_{g}$	as + Puzo
Pgas = 775	total - Pho borr - 2,2 tom = 773 torr

Quiz IV General Chemistry I Lecture Fall 13 Dr. Hahn 20 pts 10/16 W 9:30 am Form A quiz #
Name Name
(print name) (sign name)
Please show all work for full credit & for partial credit for all questions.
1. Complete the following precipitation reaction by filling in each blank with an ion or molecule. (5 pts)
molecular equation
Na_2SO_4 (aq) + Ba Cl_2 (aq) \rightarrow (aq) + Ba SO_4 (s)
ionic equation
$(aq) + SO_4^{2-}(aq) + (aq) + 2CI^- \Rightarrow (s) + 2Na^+(aq) + 2CI^-(aq)$
2. Circle the following which are strong acids. (5 pts)
HNO ₃ H F H Cl CH ₃ COOH H ₂ SO ₄
3. Assign oxidation state of the S in SO_4^{-2} (oxygen has ox state = -2)(show work). (4 pts)
4. If you have 2.2 moles of a gas in 501.2 mL volume at 278.2 K, what is the pressure in atmospheres. [PV = nRT, R=0.08206 (L atm)/(mol K)] (I made up these numbers so the numbers have no relation to reality.) (6 pts)

EC (3 pts): If the total pressure of N_2 (g) and H_2 (g) is 1.2 atm and the pressure of H_2 is 0.8 atm, what is the pressure of the N_2 ?

EC (3 pts): If the total pressure of O_2 (g) and N_2 (g) is 1.7 atm and the pressure of N_2 is 1.0 atm, what is the pressure of the O_2 ?

Quiz IV General Chemistry I Lecture Fall 13 Dr. Hahn 20 pts 10/16 W 10:30 am Form A quiz #				
Name Name				
(print name) (sign name)				
Please show all work for full credit & for partial credit for all questions.				
Complete the following Acid Base reaction by filling in the blanks. (5 pts, 2.5 pts each)				
$2 \text{ H NO}_3 + \text{ Ba (OH)}_2 \Rightarrow $ +				
2. Circle the following which are strong bases. (Assume everything is completely soluble in water) (5 pts)				
NH ₃ Na OH Ba (OH) ₂ NH ₄ OH KOH				
3. Assign oxidation state of the P in PO_4^{-3} (oxygen has ox state = -2) (show work).(4 pts)				
4. You have a gas cylinder in an internal combustion engine which contains a mixture of gases at 1.00 atm pressure, 298 K, with an initial volume of 1.78 Liters. If the piston in the gas cylinder is pushed in so that the volume of the gas becomes 0.98 Liters at a temperature of 320 K, what is the new pressure? $[(P_1V_1)/(P_2V_2) = T_1/T_2)]$ (I made up these numbers so that the numbers have no relation to reality.) (6 pts)				

EC (3 pts): If a gas is collected over water, and the total pressure is 722 mm Hg, if the water pressure is 5.0 mm Hg, what is the pressure of the gas?

Quiz IV General Chemistry I Lecture Fall 13 I	Or. Hahn 20 pts 10/16 W 10:30 am Form B quiz #			
Name	Name			
(print name)	Name(sign_name)			
Please show all work for full credit & for partial cr	redit for all questions.			
1. Complete the following Acid Base reaction	by filling in the blanks. (5 pts, 2.5 pts each)			
Ω CH ₃ -C −O-H + Na OH →	†			
2. Circle the following which are weak bases (you should assume that everything is completely soluble in water) (5 pts)				
NH ₃ Na OH Ba (OH) ₂ NH ₄	ОН КОН			
3. Assign oxidation state of the N in NO ₃ (o	xygen has ox state = -2)(show work). (4 pts)			
atm pressure, 323K, with an initial volume of 5.2 that the volume of the gas becomes 10.7 Liters at	bustion engine which contains a mixture of gases at 5.22 23 Liters. If the piston in the gas cylinder is pushed out so a temperature of 323K, what is the new pressure? ers so that the numbers have no relation to reality.) (6 pts)			

EC (3 pts) If a gas is collected over water, and the total pressure is 775 torr, if the water pressure is 2.2 torr, what is the pressure of the gas?