Name Cly	Name
(print name)	Name (sign name)
Please show all work for full cre	dit.
1. For the following reactan	ats given the following balanced precipitation reactions (8 pts)
a. precipitation molecular e	quation (circle solid or aqueous for the two products) (2 pts each, 4 pts)
Pb SO ₄ (aq) + Ca S (aq) → F	Pb S [(s))or (aq)] (circle one) + Ca SO ₄ [(s) or (aq)] (circle one)
b. Give the complete ionic	equation for the precipitation molecular equation above. (2 pts)
Pb+2(ug) + 504 (ug)	$) + Ca^{+2}(aq) + S^{-2}(aq) -)$
c. Give the net ionic equat	ion for the precipitation molecular equation above. (2 pts)
Pb. (og)	$1+5^{-2}(04) \rightarrow Pb5(s)$
2. H Cl + Na OH → Na	$Cl + H_2O$
	Syou start the reaction with 35.5 mL of 0.25 M H Cl, how many grams of get complete reaction? (40.01 grams NaOH / mole Na OH) (4 pts)
110 /2002 6	1 - althe 1 mal Naon = 0,355g
50 m 4Cl 51	oln walke more was
3. What is the oxidation sta	te of sulfur in H ₂ SO ₄ Show work below. (4 pts)
H+,0-2	2+5-8=0
2(+1)+	5+4(-2)=0 $5=8-2=6$
4. What is the volume of 1. values for full credit. (4 pts)	5 mol of a gas at 280.2 K at 742 torr? Show work and show units for all $V = NRT$, $R = 0.08206$ Later
n=1.7 hol, T=	V= nRT, R= 0.08206 later 280.2k, P= 142 Ear x 1.00 atm = 0,976)
V= 151 = (10	0.916 atm (280,2k) = 35,2 0.916 atm
<i>-</i>	mal (1, XO / M 200

Quiz IV General Chemistry I Lecture Fall 12	Dr. Hahn 20 pts 10/11/12 R 8:30 am B quiz#
Name (print name)	Name (sign name)
Please show all work for full credit.	
1. For the following reactants given the follow	ving balanced precipitation reactions (8 pts)
a. precipitation molecular equation (circle soli	d or aqueous for the two products) (2 pts each, 4 pts)
Na_2CO_3 (aq) + Ca Cl_2 (aq) \rightarrow 2 Na Cl [(s)or (ac)	q)] (circle one) + Ca CO ₃ [(s)]or (aq)] (circle one)
b. Give the complete ionic equation for the problem $2Na^{+} + CO_{2}^{-2} + Ca^{+2} + 2CC^{-2}$ (aq) (aq) (aq) (aq) c. Give the net ionic equation for the precipit $Ca^{+2} + CO_{3}^{-2}$	
3. $H Cl + Na OH \rightarrow Na Cl + H_2O$	
Na OH will you need in order to get complete react	$\frac{1 \text{ Na DH}}{\text{Pol}} \times \frac{40.01 \text{ gNa OH}}{\text{I mel Na Uy}} = 0.123 \text{ g}$ $-\text{Cl} \qquad \qquad \text{Na DH}$ $\text{In H}_3\text{PO}_4 \text{ Show work below. (4 pts)}$ $4 = 0 \qquad P = 8 - 3 = 5$
4. What is the volume of 1.3 mol of a gas at for all values for full credit. (4 pts) $PV = nR$ $N = 1.3 \text{ hel}$ $T = 294.3 \text{ k}$ $P = 723 \text{ mm/lg} \times \frac{1.000 \text{ cm}}{2000 \text{ km}}$	294.3 K at 723 mm Hg? Show work and show units T, 0,08206 <u>l atm</u> hol K

Quiz I	V General Chemistry I Lecture Fall 12 D	r. Hahn 20 pts 10/11/12 R 9:55 am A quiz#
Name		Name
(print	name) 0	sign name)
Please	show all work for full credit.	
1.	For the following reactants given the following	ng balanced precipitation reactions: (8 pts)
a	precipitation molecular equation (circle solid	or aqueous for the two products) (2 pts each, 4 pts)
2 K I ($(aq) + Ag_2 SO_4 (aq) \rightarrow K_2 SO_4 [(s) or (aq) or (aq$	q)] (circle one) + 2 Ag I ((s)) or (aq)] (circle one)
b. 2 K [†] (09) c.	Give the complete ionic equation for the pred $+2I+2IJ+3+3+504^2 \rightarrow 2$ (aq) (aq) (aq) (aq) (Give the net ionic equation for the precipitation	(4) (4) + $2AyZ(5)$ on molecular equation above. (2 pts)
	2 by+(09) + 2I	$(ag) \rightarrow 2 Ag I(s)$
2.	$H Cl + Na OH \rightarrow Na Cl + H_2O$	
H Cl	will you need in order to get complete reaction	on with 20.5 mL of 0.15 M Na OH, how many grams of $\frac{1}{1}$ (36.51 grams H CI/mole H CI) (4 pts) well HU $\times \frac{36.51 \text{ gbU}}{1} = 0.112 \text{ gHU}$ NaOVI
3.	What is the oxidation state of nitrogen in H ++ 0 ⁻² ++ 0 + (-2) 3	1 + N - 6 = 0
4. for all $N = 2$	What is the volume of 2.4 mol of a gas at 2' values for full credit. (4 pts) $\sqrt{\frac{2}{n}}$ $\sqrt{\frac{2}{n}}$	78.2 Kat 715 mm Hg? Show work and show units T, R=0,08206 Latm malk
P=r	715 mm lig x 1 atm = 0.0	741 atm
V	= NRT = (2,4mol)(0.08206 lata (278,2k) 0,941 atm)
	V= 58 & gas	0,941 atm)
	0 /	1

Quiz IV General Chemistry I Lecture Fall 12 Dr. Hahn 20 pts 10/11/12 R 9:55 am B quiz #
Name Name Name
Name Name (sign name)
Please show all work for full credit.
1. For the following reactants given the following balanced precipitation reactions: (8 pts)
a. precipitation molecular equation (circle solid or aqueous for the two products) (4 pts, 2 pts each)
Pb $(NO_3)_2 + Ca (OH)_2 \rightarrow Pb (OH)_2 $ [(s)or (aq)] (circle one) + Ca $(NO_3)_2$ [(s) or (aq)] (circle one)
b. Give the complete ionic equation for the precipitation molecular equation above. (2 pts) $Pb^{+2} + 2NO_3 + (a^{+2} + 2O_4) + (b^{+2} + 2NO_2)$ $(aq) (aq) (aq) (bq) (5) (aq)$ c. Give the net ionic equation for the precipitation molecular equation above. (2 pts)
Pb+2(09) + 2 OH(09) Pb(04)2(5)
2. $H Cl + Na OH \rightarrow Na Cl + H_2O$
For the reaction shown above, if you start the reaction with 40.5 mL of 0.55 M Na OH, how many grams of H Cl will you need in order to get complete reaction? (36.51 grams H Cl/mole H Cl) (4 pts) $ \frac{40.5 \text{ ml} \times 0.55 \text{ mol NaOH}}{1000 \text{ ml NaOH}} \times \frac{1 \text{ mol HU}}{1 \text{ mol}} \times \frac{36.51 \text{ g HU}}{1 \text{ mol HU}} = \frac{36.51 \text{ g HU}}{1 mol HU$
4. What is the volume of 1.9 mol of a gas at 288.4 K at 751 torr? Show work and show units for all values for full credit. (4 pts) $PV = nRT$, $R = 0.08206$ later $N = 1.9$ mol
$T = 288.4k$ $P = 951 \text{ Corr} \times \frac{1 \text{ atm}}{160 \text{ Corr}} = 0.988$ $V = (1.9 \text{ rol})(0.08206 \frac{1 \text{ atm}}{100000000000000000000000000000000000$
U, lot upin

	7.11.10	D II 1 20 1 10/11 B 8:20 cm A quiz # // -/ 3
Quiz IV	General Chemistry I Lecture Fall 12	Dr. Hahn 20 pts 10/11 R 8:30 am A quiz # 4-13
Name _ (print r	name)	Name (sign name)
Please	show all work for full credit.	
1.	For the following reactants given the following	wing balanced precipitation reactions (8 pts)
a.	precipitation molecular equation (circle so	lid or aqueous for the two products) (2 pts each, 4 pts)
Pb SO	$_4$ (aq) + Ca S (aq) \rightarrow Pb S [(s) or (aq))] (circle one) + Ca SO ₄ [(s) or (aq)] (circle one)
b.	Give the complete ionic equation for the	precipitation molecular equation above. (2 pts)
c .	Give the net ionic equation for the precip	itation molecular equation above. (2 pts)
2.	$\dot{H} Cl + Na OH \rightarrow Na Cl + H_2O$	
For the Na OH	e reaction shown above, if you start the reaction shown above, if you start the reaction will you need in order to get complete reactions.	tion with 35.5 mL of 0.25 M H Cl, how many grams of ction? (40.01 grams NaOH / mole Na OH) (4 pts)
3.	What is the oxidation state of sulfur in	H ₂ SO ₄ Show work below. (4 pts)
4. values	What is the volume of 1.5 mol of a gas at for full credit. (4 pts)	280.2 K at 742 torr? Show work and show units for all

Quiz IV	V General Chemistry I Lecture Fall 12	Dr. Hahn 20 pts $10/11/12 R$ 8:30 am B quiz # $3-13$
Name_		Name (sign name)
(print n	show all work for full credit.	(sign name)
		ving balanced precipitation reactions (8 pts)
	_	id or aqueous for the two products) (2 pts each, 4 pts)
Na ₂ CO	e_3 (aq) + Ca Cl ₂ (aq) \rightarrow 2 Na Cl [(s)or (a	q)](circle one) + Ca CO ₃ [(s) or (aq)](circle one)
b.	Give the complete ionic equation for the p	precipitation molecular equation above. (2 pts)
с.	Give the net ionic equation for the precipi	tation molecular equation above. (2 pts)
3. For the Na OH	H Cl + Na OH \rightarrow Na Cl + H ₂ O reaction shown above, if you start the reactive will you need in order to get complete reactive.	tion with 20.5 mL of 0.15 M H Cl, how many grams of tion? (40.01 grams NaOH / mole Na OH) (4 pts)
3.	What is the oxidation state of phosphorus	in H ₃ PO ₄ Show work below. (4 pts)

4. What is the volume of 1.3 mol of a gas at 294.3 K at 723 mm Hg ? Show work and show units for all values for full credit. (4 pts)

Quiz	IV General Chemistry I Lecture Fall 12 Dr. Hahn 20 pts 10/11/12 R 9:55 am A quiz # 1-8
Name	
(print	name) (sign name)
Please	e show all work for full credit.
1.	For the following reactants given the following balanced precipitation reactions: (8 pts)
a.	precipitation molecular equation (circle solid or aqueous for the two products) (2 pts each, 4 pts)
2 K I	$(aq) + Ag_2 SO_4 (aq) \rightarrow K_2 SO_4 [(s) or (aq)] (circle one) + 2 Ag I [(s) or (aq)] (circle one)$
b.	Give the complete ionic equation for the precipitation molecular equation above. (2 pts)
c.	Give the net ionic equation for the precipitation molecular equation above. (2 pts)
2.	$H Cl + Na OH \rightarrow Na Cl + H_2O$
For the	he reaction shown above, if you start the reaction with 20.5 mL of 0.15 M Na OH, how many grams of will you need in order to get complete reaction? (36.51 grams H Cl / mole H Cl) (4 pts)
3.	What is the oxidation state of nitrogen in H NO ₃ Show work below. (4 pts)
4. for al	What is the volume of 2.4 mol of a gas at 278.2 K at 715 mm Hg ? Show work and show units ll values for full credit. (4 pts)

Quiz IV General Chemistry-I Lecture Fall	12 Dr. Hahn 20 pts 10/11/12 R 9:55 am B quiz # 1-7
Name(print name)	N
Please show all work for full credit.	
1. For the following reactants given the	following balanced precipitation reactions: (8 pts)
a. precipitation molecular equation (circle s	olid or aqueous for the two products) (4 pts, 2 pts each)
	or (aq)] (circle one) + Ca (NO ₃) ₂ [(s) or (aq)] (circle one)
	or the precipitation molecular equation above. (2 pts)
c. Give the net ionic equation for the pre-	cipitation molecular equation above. (2 pts)
2. $H Cl + Na OH \rightarrow Na Cl + H_2O$	
For the reaction shown above, if you start the H Cl will you need in order to get complete	e reaction with 40.5 mL of 0.55 M Na OH, how many grams of reaction? (36.51 grams H Cl / mole H Cl) (4 pts)
3. What is the oxidation state of sulfur	in $H_2 SO_3$ Show work below. (4 pts)
4. What is the volume of 1.9 mol of a gavalues for full credit. (4 pts)	as at 288.4 K at 751 torr ? Show work and show units for all