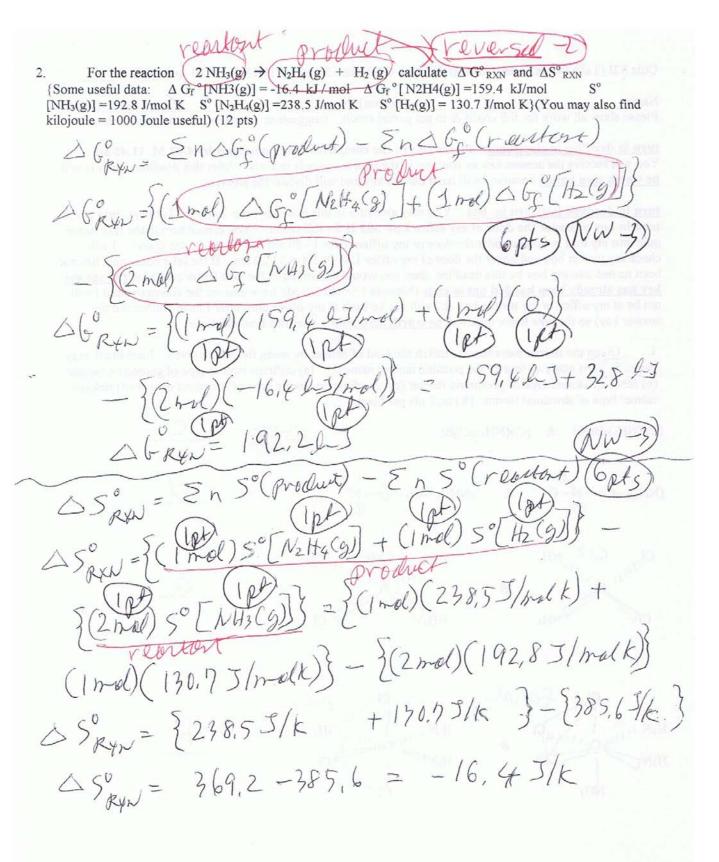
Name	Kly	(print) Name	(sign)
Please sho	w all work for full credit &	& to get partial credit. (suggestion: A	guess is better than no answer.)
You will r be worth	eceive the answer key as y zero points because I will	you turn in the take home quiz in class. hand out the key and will discuss the a	After this deadline the quiz with answers.
in box or into my tu turn in bot turned into has alread at my offi	under the door of my off arn in box or under the doo x and under the door of my o my box by this deadline, dy been handed out in cla ce or at my turn in box &	You may also turn in this quiz anytin fice LSF 303 H for full credit. You can be a full credit of the 9:20 am (for the 9:20 am). If the tension of the you would be turning in the take ass (because I would already have enter I will not be back at my office until after worth zero points after this final deadling.	annot turn in the take home quiz 30 am class). I will check my ake home quiz has not been home quiz after the answer key red the classroom and I will not er I have handed out the answer.
1.	For the coordination compuse each letter one time, n (d) coordination compoun	pound given, label each parenthesis wi many times or not at all. (a) metal (b) ad (4 pts, 1 pt per blank)	ligand (c) coordination comple
	NH ₃) ₄] Cl ₂	rside bracket(c)	ounting to of light bracker
	pordination compound shows on the coordination com	wn, the coordination number is	(2 pts)
J/K at 25°	$^{\circ}$ C (298 K) what is the Δ		178.3 kJ and $\Delta S^{\circ}_{RXN} = 159.0$
<u>\(\) \(\)</u>	GRAN = DHO-	- 123 - 20.159 hJ/	math
\(\frac{1}{6}\)		- = 0.159hJ/k)	-2
7/	RyN= 1/10,7 h	J - (298k)(0.159 Gz)	\mathcal{L}

Quiz VII (Take Home) Gen Chem II Lecture Dr. Hahn 20 pts 4/	19/13 F 11:30 am quiz#
Name	on: A guess is better than no answer.)
turn in deadline in classroom: Please return the completed take You will receive the answer key as you turn in the take home quiz in be worth zero points because I will hand out the key and will discuss	home quiz by 4/22 M 11:45 am. class. After this deadline the quiz will
turn in deadline into turn in box: You may also turn in this quiz turn in box or under the door of my office LSF 303 H for full cred quiz into my turn in box or under the door of my office after 11:20 at check my turn in box and under the door of my office LSF 303H at 1 been turned into my box by this deadline, then you would be turning key has already been handed out in class (because I would already not be at my office or my turn in box & I will not be back at my office answer key) so the take home quiz will be worth zero points after the	m (for the 11:30 am class). I will 1:20 am. If the take home quiz has not in the take home quiz after the answer have entered the classroom and I will e until after I have handed out the
1. Given the isomer pairs shown, match the kind of isomer by us have one to as many as four of the possible isomer names. (a) cis. (b) fac- mer isomer type of geometric isomer (c) coordination isomer isomer type of structural isomer (8 pts, 2 pts per blank)	trans isomer type of geometric isomer
[Co(NH ₃) ₅ Br]Cl & [Co(NH ₃) ₅ Cl]Br	
$(NH_3)_5$ $-Co$ $ O$ $(NH_3)_5$ $-Co$ $ O$ O	
CI Pt & NH3 CI Pt NH3 CI NH3	<u> </u>
H ₃ N / _{11/11} Co (1) WH ₃ H ₃ N Cl H ₃ N Cl Cl	<u>b</u>



Quiz VII (Take Home) Gen Chem II Lecture Dr. Hahn 20 pts 4/19/13 F form 9:30 am quiz #					
Name(print) Name(sign) Please show all work for full credit & to get partial credit. (suggestion: A guess is better than no answer.)					
turn in deadline in classroom: Please return the completed take home quiz by 4/22 M by 9:45 am. You will receive the answer key as you turn in the take home quiz in class. After this deadline the quiz will be worth zero points because I will hand out the key and will discuss the answers.					
turn in deadline into turn in box: You may also turn in this quiz anytime before 9:20 am into my turn in box or under the door of my office LSF 303 H for full credit. You cannot turn in the take home quiz into my turn in box or under the door of my office after 9:20 am (for the 9:30 am class). I will check my turn in box and under the door of my office LSF 303H at 9:20 am. If the take home quiz has not been turned into my box by this deadline, then you would be turning in the take home quiz after the answer key has already been handed out in class (because I would already have entered the classroom and I will not be at my office or at my turn in box & I will not be back at my office until after I have handed out the answer key) so the take home quiz will be worth zero points after this final deadline.					
1. For the coordination compound given, label each parenthesis with the correct letter. You may use each letter one time, many times or not at all. (a) metal (b) ligand (c) coordination complex (d) coordination compound (4 pts, 1 pt per blank)					
[Cu(NH ₃) ₄] Cl ₂ inside bracket()					
For the coordination compound shown, the coordination number is (2 pts) The charge on the coordination complex is (2 pts)					
For the reaction $CaCO_3(s) \rightarrow CaO(s) + CO_2(g)$ if $\Delta H^o_{RXN} = 178.3$ kJ and $\Delta S^o_{RXN} = 159.0$ J/K at 25°C (298 K) what is the ΔG^o_{RXN} (12 pts) $\Delta G^o_{RXN} = \Delta H^o_{RXN} - \Delta G^o_{RXN}$					

Quiz VII (Take Home) Gen Chem II	Lecture Dr. Hahn 20 pts 4/19	/13 F 11:30 am quiz #
Name	(print) Name	(sign)
Name Please show all work for full credit &	to get partial credit. (suggestion:	: A guess is better than no answer.)
turn in deadline in classroom: Plea You will receive the answer key as you be worth zero points because I will he	ase return the completed take ho ou turn in the take home quiz in cla	ome quiz by 4/22 M 11:45 am. ass. After this deadline the quiz will
turn in deadline into turn in box: turn in box or under the door of my quiz into my turn in box or under the check my turn in box and under the d been turned into my box by this deadl key has already been handed out in not be at my office or my turn in box answer key) so the take home quiz wi	y office LSF 303 H for full credit. door of my office after 11:20 am alloor of my office LSF 303H at 11:2 line, then you would be turning in a class (because I would already haw I will not be back at my office to	You cannot turn in the take home (for the 11:30 am class). I will 20 am. If the take home quiz has not the take home quiz after the answer ave entered the classroom and I will until after I have handed out the
1. Given the isomer pairs shown have one to as many as four of the period (b) factorized from the following of the period (b) factorized from the following factorized from the factorized	ossible isomer names. (a) cis/tra ic isomer (c) coordination isomer t	ng the letters given. Each blank may ans isomer type of geometric isomer type of structural isomer (d) linkage
[Co(NH ₃) ₅ Br]Cl & [Co(NH ₃) ₅ Cl]]Br	
(NH ₃) ₅ -Co-N-O' & (NI Cl NH ₃ Pt NH ₃ NH ₃	Cl , , , , , , , , , , , , , , , , , , ,	
H_3N H_3N $C1$ $C1$ $C1$ $C1$ $C1$ $C1$ $C1$ $C1$		

2 NH₃(g) \rightarrow N₂H₄(g) + H₂(g) calculate Δ G o RXN and Δ S o RXN For the reaction {Some useful data: $\Delta G_f^{\circ}[NH3(g)] = -16.4 \text{ kJ/mol}$ $\Delta G_f^{\circ}[N2H4(g)] = 159.4 \text{ kJ/mol}$ $[NH_3(g)] = 192.8 \text{ J/mol K}$ $S^o[N_2H_4(g)] = 238.5 \text{ J/mol K}$ $S^o[H_2(g)] = 130.7 \text{ J/mol K}$ (You may also find

kilojoule = 1000 Joule useful) (12 pts) $\triangle G = \sum_{r} \triangle G_{f} (product) - \sum_{r} \triangle G_{f} (runtant)$ $\triangle S_{ryn} = \sum_{r} \sum_{r} (product) - \sum_{r} \sum_{r} (runtant)$ $\triangle S_{ryn} = \sum_{r} \sum_{r} (product) - \sum_{r} \sum_{r} (runtant)$