

Chem 112-2014

Name: \_\_\_\_\_

Vining- Exam #1

**Second Submission: Feb. 10, 2014**

Multiple Choice Answers: Circle one answer choice only

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1. a b c d e
2. a b c d e
3. a b c d e
4. a b c d e
5. a b c d e
6. a b c d e
7. a b c d e
8. a b c d e f
9. a b c d e
10. a b c d e
11. a b c d e
12. a b c d e
13. a b c d e
14. a b c d e
15. a b c d e
16. a b c d e
17. a b c d e
18. a b c d e
19. a b c d e

I swear I have had no communications of any kind about this

exam with any person other than students in the course section: \_\_\_\_\_

Long Answer Question: You Must Show all your work

A 1.34-g sample contains a mixture of  $\text{CaCO}_3$  and  $\text{CaCl}_2$ . The sample is heated in a sealed container and the following reaction occurs to the  $\text{CaCO}_3$ . The  $\text{CaCl}_2$  does not react.



The final state of the reaction vessel shows: Volume = 1.68 L

Temperature = 120 °C

Pressure of  $\text{CO}_2$  = 32.1 mm Hg

What is the mass percent of  $\text{CaCO}_3$  in the sample?

ANSWER: \_\_\_\_\_ %  $\text{CaCO}_3$