Study Guide  
Competency Demo #2

Key Concepts:
- Algorithms and Programs
- Loops (Iteration)
  - for loops
  - while loops
- Conditionals
  - if statements
  - if/else statements
  - if/elif/else statements
- Data/Variables

Questions for this Competency Demo

1. Consider the following code. What does it do? [sample code would follow]

2. Write a python program to do a specific task. [e.g. Calculate the area of a rectangle, decide what grade a user has earned based on test scores, ask a user their name and then say "Hello [that name]"].

Questions over this material that won't be on THIS competency demo but could be on the final exam

1. What is the definition of [Enter any key concept here]?

2. When/how would we use a [Enter any key concept here] in a Python computer program?

3. If you wanted to explain [Enter any key concept here] with a Python program, what SPECIFIC example would you use and why?

4. Why might we decide to use python as an instruction language for a middle/high school student?

5. Give one example of a python program that a middle/high school student could write that would connect CS to another class that student is taking.