Fundamentals of Programming
Study Guide
Competency Demo #1

Vocabulary

- Algorithm
- Conditional
- Debug
- Event
- Function
- Loop
- Parameter
- Program
- Variable

Learning Objectives

1. Given one of the vocabulary words from above, write an accurate definition.

   What is the definition of a LOOP?

2. Provide a non-computer example that illustrates one of the vocabulary words.

   If you wanted to give your students a real world (non-computer) example of a LOOP to help them understand the idea, what example would you give them and why?

3. Given a real-world scenario and a particular vocabulary word, explain where/how the vocabulary word is present in the scenario.

   Consider the following scenario:
   Miss Sing is getting ready for spirit week at school. Today is Wednesday which is "Twin Day"
   Explain how you would use this scenario to teach your students about the concept of a variable.

4. Consider a block of code and identify its outcome.
   What would be the result of running the following block of Scratch code.

5. Consider a provided scenario and a block of code that attempts to solve the scenario. Identify whether the code will accurately solve the scenario and, if not, how to fix the code.

   Rand Fischer is trying to write a program where the main character continually leaps around the screen and scores a point if it lands on the octopus. The following code does not work properly. What is wrong and how would he fix the problem?
   [Note: There are at least two very distinct ways to answer this question. Pick only one and explain that one well.]