



Lesson 3.1 Summative Assessment Questions

1. Which of these statements is FALSE?
 - A. When electric current flows through pins, it can be detected by program code to distinguish a pin is "On".
 - B. Program code can cause electric current to flow through a GPIO pin to an LED and back to another GPIO pin in order to light up an LED.
 - C. Hardware and software interact in Piper circuits and code to cause things to happen such as turning on LEDs.
 - D. Piper circuits and code cannot interact together to cause things to happen.
2. Which statement accurately describes the difference between pseudocode and programs?
 - A. Pseudocode is more difficult to read and understand than programs.
 - B. Pseudocode can be translated into machine language of 1s and 0s.
 - C. Pseudocode is written for humans to understand and programs are written for computers to understand.
 - D. Pseudocode is graphical blocks that can be moved like puzzle pieces on the screen.
3. An *algorithm* is ___?
 - A. A step-by-step set of operations to be performed that can solve a problem.
 - B. A special type of advanced math.
 - C. A sequence of code that repeats multiple times to create music rhythms.
 - D. A reptile with big teeth.
4. Why are *loops* used in programming?
 - A. To start and stop the code.
 - B. To gather up all the data so it doesn't get lost.
 - C. To run the same sequence of code multiple times.
 - D. To make sure the code is not duplicated.
5. What is a sequence in coding?
 - A. The name of a special code in Blockly.
 - B. A series of steps for a task.
 - C. A group of small shiny objects that are sewn into clothing.
 - D. A special type of electronic device used in music.

6. Which of these is NOT an example of a sequence of instruction?
- A. Turn pin 22 on, Wait 2000 ms, Turn pin 22 off
 - B. Take out the parts, assemble the device from parts, plug in the power, turn on the device
 - C. Take two steps forward, turn to the right, shake it, take two steps back
 - D. Buttons, LEDs, wires, buzzers, switches and breadboards
7. What is a program as it relates to Computer Science?
- A. A professional who is good at grammar and writes great code
 - B. An algorithmic set of instructions that a computer processes to achieve a particular objective.
 - C. An ordered list of steps that people follow to feel better
 - D. An algorithmic set of instructions that a person follows to win games
8. To accomplish a task with the Piper Computer, we create a system where wires and buttons in a circuit are the ____, and the code we write to control what happens is part of the ____.
- A. Hardware, Software
 - B. Software, Hardware
 - C. Outputs, Inputs
 - D. Peripherals, Screen
9. Which of the following terms are **NOT** related to *computational thinking*?
- A. logic, problem solving, analyzing data, algorithms, sequences
 - B. putting things in order, ordered steps, respond to challenges, design a solution
 - C. texting, posting pics, emojis, stickers
 - D. going from start to finish, complexity, troubleshooting, debugging

Alternative question 9

9. List 4 aspects of computational thinking.
- A.
 - B.
 - C.
 - D.