

RH01 Scripting and Programming Foundations Version 1

Section: IT & Computer Studies • Total Questions: 10 • Format: Verified Q&A

1. What is the outcome for the given algorithm? Round to the nearest tenth, if necessary. NumList = [1, 3, 5, 6, 7, 8] x = 0 Count = 0 for Number in NumList x = x + Number Count Count + 1 x = x/ Count Put x to output

- (A) 5
 - (B) 6
 - (C) 6.1
 - (D) 4.3
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2. What is an example of an algorithm?

- (A) Unplug the device, wait 30 seconds, and restart the device.
 - (B) The list contains apples, bananas, and oranges.
 - (C) The sign of two integers determines the sign of the product.
 - (D) A webpage uses an HTML file type.
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3. Which two situations would be helped by using a programming library?

- (A) A programming student is writing code to iterate through the integers in a list and determine the maximum.
 - (B) A video game programmer needs to perform several animation tasks, all of which are very common in the industry. The programmer does not want to have to code each task, and they are unsure if they even know how to code a few of them.
 - (C) A programmer needs to perform a series of file compression tasks. These tasks are commonly performed by programmers, and the programmer does not want to have to code them all by hand.
 - (D) A programmer needs to write several interacting objects for a student gradebook application, some of which need an inheritance structure.
 - (E) A programmer is developing a database application that can house various types of data. The software cannot know ahead of time the data type, and so the programmer needs variables that do not require an initial declaration type.
 - (F) A programmer is writing a piece of mathematical code that requires the heavy use of recursive functions.
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4. Which information requires the data type float?

- (A) A list of passwords consisting of all numbers except the number 0
 - (B) The percentage of × a password was entered correctly out of nine attempts
 - (C) A password that starts with 0 and uses each of the digits 1–9 once
 - (D) An indication of whether an entered password was correct
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5. Which data type should be used to hold the number of people who have entered a store?

- (A) Float
 - (B) Boolean
 - (C) String
 - (D) Integer
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6. Which two statements describe advantages to using programming libraries?

- (A) Using libraries turns procedural code into object-oriented code.
 - (B) Using a library prevents a programmer from having to code common tasks by hand.
 - (C) Using a library minimizes copyright issues in coding.
 - (D) A program that uses libraries is more portable than one that does not.
 - (E) The programmer can improve productivity by using libraries.
 - (F) Libraries always make code run faster.
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7. Which two steps of the algorithm should be switched to make the algorithm successful?

The steps in an algorithm to build a picnic table are given.

- 1) Measure and mark the lumber cuts that need to be made.*
- 2) Buy the needed materials.*
- 3) Determine the needed materials.*
- 4) Cut the lumber to the proper dimensions.*
- 5) Assemble the pieces and paint.*

- (A) 1 and 2
 - (B) 2 and 3
 - (C) 3 and 4
 - (D) 1 and 3
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8. Which phase of a Waterfall approach involves writing the project's program?

- (A) Analysis
 - (B) Design
 - (C) Implementation
 - (D) Testing
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9. What is a characteristic of a compiled language?

- (A) Outputs an interpreter to run the program
 - (B) Runs easily on different kinds of machines
 - (C) Runs faster than interpreted languages
 - (D) Runs right away without first compiling
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10. What is true about the algorithm's correctness for sorting an arbitrary list of three integers?

A particular sorting algorithm takes integer list 10, 6, 8 and incorrectly sorts the list to 6, 10, 8.

- (A) The algorithm is correct.
- (B) The algorithm's correctness is unknown.
- (C) The algorithm is incorrect.
- (D) The algorithm only works for 10, 6, 8.