

***Starting Out With Python 6th edition Gaddis
Solutions Manual***

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Chapter 1 Solutions

Checkpoint 1.1-1

A program is a(n) _____ that a computer follows to perform a task.

- a. user interface
- b. operating system
- c. set of instructions
- d. programming language

Answer: c

Checkpoint 1.2-1

What term refers to the physical devices, or components, of which a computer is made?

- a. hardware
- b. software
- c. input
- d. output

Answer: a

Checkpoint 1.2-2

What part of the computer actually runs programs?

- a. main memory
- b. the CPU
- c. secondary memory
- d. I/O devices

Answer : b

Checkpoint 1.2-3

What part of the computer serves as a work area to store a program and its data while the program is running?

- a. I/O devices
- b. secondary memory
- c. main memory or RAM
- d. the CPU

Answer : c

Checkpoint 1.2-4

What part of the computer holds data for long periods of time, even when there is no power to the computer?

- a. I/O devices
- b. main memory
- c. the CPU
- d. secondary storage or hard disk

Answer : d

Checkpoint 1.2-5

What part of the computer collects data from people and from other devices?

- a. input device
- b. output device
- c. CPU
- d. RAM

Answer: a

Checkpoint 1.2-6

What part of the computer formats and presents data for people or other devices?

- a. input device
- b. output device
- c. CPU
- d. RAM

Answer: b

Checkpoint 1.2-7

What fundamental set of programs control the internal operations of the computer's hardware?

- a. file system
- b. backup program
- c. application interface
- d. operating system

Answer: d

Checkpoint 1.2-8

What do you call a program that performs a specialized task, such as a virus scanner, a file compression program, or a data backup program?

- a. utility program
- b. application software

- c. operating system
- d. central processor

Answer: a

Checkpoint 1.2-9

Word processing programs, spreadsheet programs, email programs, web browsers, and game programs belong to what category of software?

- a. utility program
- b. application software
- c. operating system
- d. central processor

Answer: b

Quiz 1.2 (Scored)

Question 1

When a program runs on a computer, the part of the computer that carries out the instructions is called the ____

- a. RAM
- b. GPU
- c. ROM
- d. CPU

Answer: d

Question 2

When a program runs on a computer, it is stored in _____

- a. ROM
- b. RAM
- c. GPU
- d. CPU

Answer: b

Checkpoint 1.3-1

A tiny “switch” that can be set to either on or off is called a _____.

- a. bit
- b. byte
- c. nibble
- d. frame

Answer: a

Checkpoint 1.3-2

ASCII is an encoding scheme that uses a set of _____ to store characters in a computer's memory.

- a. 128 bits
- b. 128 numeric codes
- c. 1024 numeric codes
- d. 256 unique strings

Answer: b

Checkpoint 1.3-3

What encoding scheme is extensive enough to represent the characters of many of the languages in the world?

- a. Universal
- b. Hexadecimal
- c. ASCII
- d. Unicode

Answer: d

Quiz 1.3 (Scored)**Question 1**

A bit is

- a. an alternative term for byte.
- b. enough memory to store a lowercase character.
- c. an electronic device used in computers.
- d. a binary digit, like 0 or 1.

Answer: d

Question 2

A byte is made up of _____ bits.

2

8

16

32

ANSWER: 8

Question 3 (replaces the current question)

What are ASCII and Unicode?

- a) They were the first general purpose computers.
- b) They are popular microprocessors.
- c) They are encoding schemes that allow characters to be stored as numeric codes.
- d) They are techniques for storing negative numbers in memory.

Answer: c

Checkpoint 1.4-1

A CPU understands instructions that are written only in _____.

- a. high-level code
- b. Python
- c. hex language
- d. machine language

Answer: d

Checkpoint 1.4-2

A program has to be copied into what type of memory each time the CPU executes it?

- a. RAM
- b. ROM
- c. BUS
- d. DISC

Answer: a

Checkpoint 1.4-3

When a CPU executes the instructions in a program, it is engaged in what process?

- a. code switching
- b. fetch-decode-execute cycle
- c. in-out processing
- d. device communication

Answer: b

Checkpoint 1.4-4

What format uses short words that are known as mnemonics?

- a. hexadecimal format
- b. binary format
- c. assembly language
- d. high-level language

Answer: c

Checkpoint 1.4-5

A high-level programming language allows you to create powerful and complex programs without knowing how the CPU works.

- a. True
- b. False

Answer: True

Checkpoint 1.4-6

Each language has a set of rules that must be strictly followed when writing a program. What is this set of rules called?

- a. grammar
- b. protocols
- c. semantics
- d. syntax

Answer: d

Checkpoint 1.4-7

What type of program translates a high-level language program into a separate machine language program?

- a. compiler
- b. router
- c. analyzer
- d. processor

Answer: a

Checkpoint 1.4-8

A mistake that is usually caused by a misspelled key word, a missing punctuation character, or the incorrect use of an operator is called a logical error.

- a. True
- b. False

Answer: False

Quiz 1.4 (Socred)

Question 1

A(n) _____ is a program that both translates and executes the instructions in a program.

- a. compiler
- b. linker
- c. editor
- d. interpreter

Answer: d

Question 2

The code that a programmer writes is called _____ code.

- a. exe
- b. source
- c. machine
- d. object

Answer: b

Question 3

Words that have a special meaning in a programming language are called _____.

- a. format words
- b. special words
- c. programming words
- d. key words

Answer: d

Live Code Example 1.1

Type the following statement in the interface shown below.

```
print('Python programming is fun!')
```

Initial Code:

Answer:

```
print('Python programming is fun!')
```

Live Code Example 1.2

Type the following statement in the interface shown below.

```
print('To be or not to be')
```

Initial Code:

Answer:

```
print('To be or not to be')
```

Checkpoint 1.5-1

The program that can read Python programming statements and execute them is called a Python

_____.

- a. analyzer
- b. router
- c. interpreter
- d. processor

Answer: c

Checkpoint 1.5-2

When programming in _____ mode, the interpreter waits for you to type a Python statement on the keyboard and then executes it.

- a. user
- b. batch
- c. interactive
- d. script

Answer: c

Checkpoint 1.5-3

When programming in _____ mode, the interpreter reads the contents of a file that contains Python statements and executes each statement as it reads it.

- a. user
- b. batch
- c. interactive
- d. script

Answer: d