1.10 Exercises

Review Questions

True/False

1. Computer science is the study of computers. False

2. The CPU is the "brain" of the computer. True

3. Secondary memory is also called RAM. False

4. All information that a computer is currently working on is stored in main memory. True

5. The syntax of a language is its meaning, and semantics is its form. True

6. A function definition is a sequence of statements that defines a new command. True

7. A programming environment refers to a place where programmers work. False

8. A variable is used to give a name to a value so it can be referred to in other places. True

9. A loop is used to skip over a section of a program. False

10. A chaotic function can't be computed by a computer. False

Multiple Choice

1. What is the fundamental question of computer science?
   a) How fast can a computer compute?
   b) What can be computed?
   c) What is the most effective programming language? b
   d) How much money can a programmer make?

2. An algorithm is like a
   a) newspaper   b) venus flytrap   c) drum   d) recipe   d

3. A problem is intractable when
   a) you cannot reverse its solution
   b) it involves tractors

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c) it has many solutions   d
d) it is not practical to solve

4. Which of the following is *not* an example of secondary memory?
   a) RAM   b) hard drive   c) USB flash drive   d) CD-ROM   a

5. Computer languages designed to be used and understood by humans are
   a) natural languages
   b) high-level computer languages
   c) machine languages   b
   d) fetch-execute languages

6. A statement is
   a) a translation of machine language
   b) a complete computer command   c
   c) a precise description of a problem
   d) a section of an algorithm

7. One difference between a compiler and an interpreter is   b
   a) a compiler is a program
   b) a compiler is used to translate high-level language into machine lan-
   guage
   c) a compiler is no longer needed after a program is translated
   d) a compiler processes source code

8. By convention, the statements of a program are often placed in a function
   called   b
   a) import   b) main   c) program   d) IDLE

9. Which of the following is *not* true of comments?
   a) They make a program more efficient
   b) They are intended for human readers   a
   c) They are ignored by Python
   d) In Python, they begin with a pound sign (#)

10. The items listed in the parentheses of a function definition are called
    a) parentheticals   b) scripts   c) comments   d) parameters   d

Discussion

1. Compare and contrast the following pairs of concepts from the chapter: