1. To store a value for later use in Python, the programmer needs to create a:
   A. number
   B. character
   C. variable
   D. boolean

Section	2.1 Variables
Title	What is the term used to store a value for later use in a Python program?
type	mc
section	2.1 Variables
id	testbank-py-1-ch02-01

2. How is a value stored in a variable?
   A. an assignment statement
   B. an expression
   C. a print statement
   D. an equality statement

Section	2.1 Variables
Title	How is a value stored in a variable?
type	mc
section	2.1 Variables
id	testbank-py-1-ch02-03

3. What is the value of the variable `num` after the following code snippet?

```
num = 5
num2 = 6
num = num2 + 3
```

   A. 5
   B. 9
   C. 8
   D. 11

Section	2.1 Variables
Title	What is the value of the variable num after the following code statement?
type	mc
section	2.1 Variables
id	testbank-py-1-ch02-04

4. What is the right way to assign the value of `num + 10` to `num2`?

   A. `num2 = num + 10`
   B. `num = num2 + 10`
   C. `num2 + 10 = num`
   D. `num + 10 = num2`

Section	2.1 Variables
Title	What is the right way to assign the value of num + 10 to num2?
type	mc
section	2.1 Variables
id	testbank-py-1-ch02-06

5. What is wrong with the following code snippet?

```
2ndNum = 78
```

A. The `2ndNum` variable is never assigned a value
B. The `2ndNum` variable is assigned a non-numeric value
C. The `2ndNum` variable is not a valid variable name
D. The `2ndNum` variable is never initialized

Section	2.1 Variables
Title	What is wrong with the following code snippet?
type	mc
section	2.1 Variables
id	testbank-py-1-ch02-08

6. What is a variable called that should remain unchanged throughout your program?

A. a constant variable
B. a data variable
C. a string variable
D. a boolean variable

Section	2.1 Variables
Title	What is a variable called that should remain unchanged throughout your program?
type	mc
section	2.1 Variables
id	testbank-py-1-ch02-09

7. Which of the following variables should be coded as a constant in Python?

A. character: 'a'
B. string: "hello"
C. number: 1234
D. pi: 3.14159

Section	2.1 Variables
Title	Python naming conventions for variables
type	mc
section	2.1 Variables
id	testbank-py-1-ch02-10

8. Which of the following variable names follows the Python naming convention for constants?

A. `maxSize`
B. `MAXSIZE`
C. `MAX SIZE`
D. `max_size`

Section	2.1 Variables
Title	Python naming conventions for variables
type	mc
section	2.1 Variables
id	testbank-py-1-ch02-11

9. Why is it important to follow Python naming standards for variables representing constants?

A. it is good programming style
B. it is required by the Python programming language
C. it is required by graphic programs
D. it is required for all non-zero numbers

Section	2.1 Variables

Title	Python naming conventions for variables
type	mc
section	2.1 Variables
id	testbank-py-1-ch02-12

10. Which of the following is an appropriate constant name to represent the number of pencils in a pack?

A. `NUM_PENCILS_PER_PACK = 12`
B. `numPencilsPerPack = 12`
C. `NUMpencilsPERpack = 12`
D. `numpencilsperpack = 12`

Section	2.1 Variables
Title	Which of the following is an appropriate constant name to represent the number of pencils in a pack?
type	mc
from	testbank-py-1-ch02-14
section	2.1 Variables
id	testbank-py-2-ch02-14

11. A variable is:

A. A storage location with a name
B. An assignment statement
C. An expression
D. A point in a program where a decision is made

Section	2.1 Variables
Title	What is the definition of a variable?
type	mc
from	testbank-py-1-ch02-02
section	2.1 Variables
id	testbank-py-2-ch02-02

12. What is wrong with this assignment statement?

```
num + 10 = num2
```

A. The left hand side of an assignment statement cannot include an operator.
B. Nothing, this statement compiles and executes.
C. The value of `10` must be defined before this statement can be executed.
D. The `num` variable must be defined before this statement can be executed

Section	2.1 Variables
Title	What is wrong with this assignment statement?
type	mc
from	testbank-py-1-ch02-05
section	2.1 Variables
id	testbank-py-2-ch02-05

13. What is wrong with the following code snippet?

```
num = 78A
```

A. The `num` variable is never assigned a value
B. `78A` is not a valid value in a Python program
C. The name `num` is not a valid variable name
D. The `num` variable is never initialized

Section	2.1 Variables
Title	What is wrong with the following code snippet?

type	mc
from	testbank-py-1-ch02-07
section	2.1 Variables
id	testbank-py-2-ch02-07

14. Which line of code creates a variable named x and initializes it to the integer 5?

A. `x = 5.0`
B. `x = 5`
C. `x = '5'`
D. `x = "5"`

Section	2.1.2 Number Types
Title	Which line of code creates a variable named x and initializes it to the integer 5?
type	mc
from	testbank-py-1-ch02-15
section	2.1.2 Number Types
id	testbank-py-2-ch02-15

15. Which of the following items is an example of a floating-point literal?

A. `100000`
B. `100,000`
C. `100000.0`
D. `100,000.0`

Section	2.1.2 Number Types
Title	Which of the following items is an example of a floating-point literal?
type	mc
section	2.1.2 Number Types
id	testbank-py-2-ch02-97

16. Which of the following names is **not** a legal variable name?

A. `bottle-volume`
B. `cans_per_pack`
C. `four`
D. `x2`

Section	2.1.3 Variable Names
Title	Which of the following names is not a legal variable name?
type	mc
section	2.1.3 Variable Names
id	testbank-py-1-ch02-16

17. Which of the following statements about variable names is **not** correct?

A. Variable names are case sensitive.
B. Variable names can begin with a letter, an underscore or a number.
C. Variable names cannot be reserved words such as `if` and `class`.
D. Variable names cannot contain symbols such as `?` and `%`.

Section	2.1.3 Variable Names
Title	Which statement about variable names is not correct?
type	mc
section	2.1.3 Variable Names
id	testbank-py-2-ch02-98

18. Which of the following names is the best for a constant variable holding the price of a can of soda?

A. `soda_price`
B. `soda-price`
C. `SodaPrice`
D. `SODA_PRICE`

Section	2.1.4 Constants
Title	Which of the following names is the best for a constant variable holding the price of a can of soda?
type	mc
section	2.1.4 Constants
id	testbank-py-1-ch02-17

19. What convention is normally used when naming constants in a Python program?
    A. Constant names are normally written in all capital letters.
    B. Constant names normally begin with a `#` character.
    C. Constant names normally begin and end with an underscore.
    D. Constant names normally begin with a capital letter followed only by numbers.

Section	2.1.4 Constants
Title	What convention is normally used when naming constants in a Python program?
type	mc
section	2.1.4 Constants
id	testbank-py-2-ch02-99

20. What symbol is used to begin a comment in a Python program?
    A. `!`
    B. `@`
    C. `#`
    D. `$`

Section	2.1.5 Comments
Title	What symbol is used to begin a comment in a python program?
type	mc
section	2.1.5 Comments
id	testbank-py-1-ch02-18

21. A numeric constant that appears in your code without explanation is known as a:
    A. floating-point number
    B. magic number
    C. string
    D. variable

Section	2.1.5 Comments
Title	What name is given to a numeric constant that appears in your code without explanation?
type	mc
section	2.1.5 Comments
id	testbank-py-2-ch02-100

22. Which of the following statements correctly multiplies `num1` times `num2`?

    A. `num1 * num2`
    B. `num1 x num2`
    C. `num1 · num2`
    D. `num1 ** num2`

Section	2.2 Arithmetic
Title	Which of the following statements correctly multiplies num1 times num2?
type	mc
section	2.2 Arithmetic
id	testbank-py-1-ch02-19

23. What is the value of `result` after the following code snippet?

```
num1 = 10
num2 = 20
```

```
num3 = 2
result = num1 / num2 / num3
print(result)
```

A. 1
B. 0
C. The code has an error
D. 0.25

Section	2.2 Arithmetic
Title	What is the value of result after the following code snippet?
type	mc
section	2.2 Arithmetic
id	testbank-py-1-ch02-22

24. What will be the values of the variables `num1` and `num2` after the given set of assignments?

```
num1 = 20
num2 = 10
num1 = num1 + num2 / 2
num2 = num1
```

A. `num1 = 20.0, num2 = 10.0`
B. `num1 = 15.0, num2 = 10.0`
C. `num1 = 25.0, num2 = 25.0`
D. `num1 = 15.0, num2 = 15.0`

Section	2.2 Arithmetic
Title	What will be the values of the variables num1 and num2 after the given set of assignments?
type	mc
section	2.2 Arithmetic
id	testbank-py-1-ch02-23

25. What is the value of `result` after the following code snippet?

```
num1 = 10
num2 = 20
num3 = 2
result = num1 // num2 // num3
print(result)
```

A. 1
B. 0
C. The code has an error
D. 0.25

Section	2.2 Arithmetic
Title	What is the value of result after the following code snippet?
type	mc
section	2.2 Arithmetic
id	testbank-py-1-ch02-24

26. What is the value of `result` after the following code snippet?

```
num1 = 20
num2 = 10
num3 = 2
result = num1 // num2 // num3
print(result)
```

A. 1
B. 0
C. The code has an error
D. 0.25

Section	2.2 Arithmetic
Title	What is the value of result after the following code snippet?
type	mc
section	2.2 Arithmetic
id	testbank-py-1-ch02-25

27. What is the value of `result` after the following code snippet?

```
num1 = 20
num2 = 10
num3 = 2
result = num1 // num2 / num3
print(result)
```

A. 1.0
B. 0.0
C. The code has an error
D. 0.25

Section	2.2 Arithmetic
Title	What is the value of result after the following code snippet?
type	mc
section	2.2 Arithmetic
id	testbank-py-1-ch02-26

28. Which code snippet is the correct Python equivalent to the following Algebraic expression ?

$c = \sqrt{(a^2 + b^2)}$

A. `sqrt(a ^ 2 + b ^ 2)`
B. `sqrt(a ** 2 + b ** 2)`
C. `sqrt(a * 2 + b * 2)`
D. `squareroot(a ** 2 + b ** 2)`

Section	2.2 Arithmetic
Title	What is the value of result after the following code snippet?
type	mc
section	2.2 Arithmetic
id	testbank-py-1-ch02-28

29. What symbol is used to find remainder of a floor division?

A. //
B. /
C. %
D. #

Section	2.2 Arithmetic
Title	What symbol is used to find remainder of a floor division?
type	mc
section	2.2 Arithmetic
id	testbank-py-1-ch02-29

30. A(n) _____ is a collection of programming instructions that carry out a particular

task.

A. argument
B. parameter
C. function
D. literal

Section	2.2 Arithmetic
Title	What is a collection of programming instructions that carry out a particular task?
type	mc
section	2.2 Arithmetic
id	testbank-py-1-ch02-30

31. What is the value of `4 ** 3`?

A. `12`
B. `64`
C. `1`
D. Nothing, there is an error in the statement

Section	2.2 Arithmetic
Title	What is the value of 4 ** 3?
type	mc
section	2.2 Arithmetic
id	testbank-py-1-ch02-31

32. What is returned by the function: `round(x)` if `x = 5.64`?

A. Nothing, there is an error in the statement
B. `5`
C. `5.6`
D. `6`

Section	2.2 Arithmetic
Title	What is returned by the function: round(x)if x = 5.64?
type	mc
section	2.2 Arithmetic
id	testbank-py-1-ch02-32

33. What is returned by the function: `abs(x)` if `x = 5.64`?

A. Nothing, there is an error in the statement
B. `5`
C. `5.64`
D. `6`

Section	2.2 Arithmetic
Title	What is returned by the function: abs(x)if x = 5.64?
type	mc
section	2.2 Arithmetic
id	testbank-py-1-ch02-33

34. What is returned by the function: `max(1, 4, 15, 2, 3, 24)`?

A. `1`
B. `24`
C. `15`
D. `2`

Section	2.2 Arithmetic
Title	What is returned by the max function?
type	mc
section	2.2 Arithmetic
id	testbank-py-1-ch02-34

35. What is returned by the function: `round(3.14159, 2)`?

A. `3`
B. `3.14159`
C. `3.2`
D. `3.14`

Section	2.2 Arithmetic
Title	What is returned by the function: round(3.14159, 2)?
type	mc
section	2.2 Arithmetic
id	testbank-py-1-ch02-35

36. What must be done first before you can use a function from the standard library?

A. the function must be defined
B. the function must be imported
C. the function must be included in a module
D. the function must be enclosed in parenthesis

Section	2.2 Arithmetic
Title	What must be done first before you can use a function from the standard library?
type	mc
section	2.2 Arithmetic
id	testbank-py-1-ch02-38

37. What is returned by the function: `sqrt(64)`?

A. `8.0`
B. `32.0`
C. `4.0`
D. `64.0`

Section	2.2 Arithmetic
Title	What is returned by the sqrt function?
type	mc
section	2.2 Arithmetic
id	testbank-py-1-ch02-39

38. What is wrong with the following code snippet?

```
((num1 + num2) * num3 / 2 * (1 - num4)
```

A. nothing, the code compiles and runs
B. there is an extra parenthesis
C. parenthesis are not required
D. illegal expression

Section	2.2 Arithmetic
Title	What is wrong with the following code snippet?
type	mc
section	2.2 Arithmetic
id	testbank-py-1-ch02-40

39. Which of the following statements correctly calculates the average of three numbers: `num1, num2, and num3`?

A. `num1 + num2 + num3 / 3`
B. `num1 + num2 + num3 % 3`
C. `( num1 + num2 + num3 ) / 3`
D. `( num1 + num2 + num3 / 3 )`

Section	2.2 Arithmetic
Title	Which of the following statements computes the average of three numbers?
type	mc
from	testbank-py-1-ch02-20
section	2.2 Arithmetic
id	testbank-py-2-ch02-20

40. Which of the following suggestions is the best way to make code easier for other programmers to understand?

A. Use more statements in the source code.
B. Give each variable a name that explains its purpose.
C. Avoid using complex calculations in the source code
D. Use single-letter variable names in the source code

Section	2.2 Arithmetic
Title	What is the best way to make code easier for other programmers to understand?
type	mc
from	testbank-py-1-ch02-21
section	2.2 Arithmetic
id	testbank-py-2-ch02-21

41. Assume that you have an integer variable, `pennies`, that currently contains an integer number of pennies. Which statement determines the number of dollars and cents for that number of pennies?

A.
```
dollars = pennies // 100
cents = pennies % 100
```

B.
```
dollars = pennies / 100
cents = pennies % 100
```

C.
```
dollars = pennies // 100
cents = pennies / 100
```

D.
```
dollars = pennies % 100
cents = pennies / 100
```

Section	2.2 Arithmetic
Title	Which statement determines the number of dollars and cents for a number of pennies?
type	mc
from	testbank-py-1-ch02-27
section	2.2 Arithmetic
id	testbank-py-2-ch02-27

42. What is wrong with the following code snippet?

```
result = num1 // num2 / num3
num1 = 20
num2 = 10
num3 = 2
print(result)
```

A. A variable is used before it is assigned a value.
B. Nothing, the code compiles and runs.
C. The `//` symbol cannot be used in a Python program.
D. One or more of the variable names is not valid.

Section	2.2 Arithmetic
Title	What is wrong with the following code snippets which includes variables?
type	mc
from	testbank-py-1-ch02-36
section	2.2 Arithmetic
id	testbank-py-2-ch02-36

43. A(n) _____ is a collection of code that has been written by someone else that is ready for you to use in your program.

A. variable
B. argument
C. function
D. library

Section	2.2 Arithmetic
Title	What is a collection of code that has been written and translated by someone else.
type	mc
from	testbank-py-1-ch02-37
section	2.2 Arithmetic
id	testbank-py-2-ch02-37

44. Consider the following code segment:

```
x = 5
y = 7
z = x - y * 2
```

After this code segment executes, the value of z is:

A. -9
B. -4
C. 5
D. 7

Section	2.2.1 Basic Arithmetic Operations
Title	Evaluate expressions involving basic arithmetic operations
type	mc
section	2.2.1 Basic Arithmetic Operations
id	testbank-py-1-ch02-41

45. The Python code that represents the formula $c = (a / b)^3$ is:

A. `c = a / b ** 3`
B. `c = (a / b) ** 3`
C. `c = 3 ^ (a / b)`
D. `c = (a / b) ^ 3`

Section	2.2.2 Powers
Title	Translate a formula to equivalent Python code
type	mc
section	2.2.2 Powers
id	testbank-py-1-ch02-42

46. Consider the following code segment:

```
x = 5
y = 3
z = 2
result = x // y + x % z
```

After this code segment, the value of `result` is:

A. 2
B. 3
C. 4
D. 5

Section	2.2.3 Floor Division and Remainder
Title	Evaluate an expression involving division and remainder
type	mc
section	2.2.3 Floor Division and Remainder
id	testbank-py-1-ch02-43

47. Which function call will cause Python to report an error?

A. `abs(1, 2)`
B. `max(1, 2)`
C. `min(1, 2)`
D. `round(1, 2)`

Section	2.2.4 Calling Functions
Title	Which function call will cause Python to report an error?
type	mc
section	2.2.4 Calling Functions
id	testbank-py-2-ch02-101

48. Which statement computes the square root of 5 and stores it in the variable, r? Assume that the `math` module has already been imported.

A. `r = math.squareRoot(5)`
B. `r = math.sqrt(5)`
C. `r = math.squareRoot[5]`
D. `r = math.sqrt[5]`

Section	2.2.5 Mathematical Functions
Title	Which statement computes the square root of 5?
type	mc
section	2.2.5 Mathematical Functions
id	testbank-py-1-ch02-44

49. Which of the following statements computes the minimum of the variables `a`, `b`, `c` and `d`, and stores it in `x`?

A. `x = minimum(a, b, c, d)`
B. `x = min(a, b, c, min(d))`
C. `x = min(min(a, b), min(c, d))`
D. `min(a, b, c, d) = x`

Section	2.2.5 Mathematical Functions
Title	Which statement computes the minimum value of four
type	mc
section	2.2.5 Mathematical Functions
variables?	
id	testbank-py-1-ch02-45

50. What is the value of `length` after this statement: `length = len("Good Morning")?`

A. `10`
B. `11`
C. `12`
D. `13`

Section	2.4 Strings
Title	What is the value of length after this statement: length = len("Good Morning")?
type	mc
section	2.4 Strings
id	testbank-py-1-ch02-47

51. Which statement correctly creates a new variable by combining the two string variables: `firstName` and `lastName`?

A. `name = "firstName" + "lastName"`
B. `name = firstName + lastName`
C. `name = first name + last name`
D. `name = firstName & lastName`

Section	2.4 Strings
Title	Which statement correctly creates a new variable by combining the strings firstName and lastName?
type	mc
section	2.4 Strings
id	testbank-py-1-ch02-49

52. What is printed from the following code snippet:

```
message = "ho.."
print(message * 3)
```

A. `ho..ho..ho`
B. `ho..`
C. `ho..ho..ho..`
D. nothing is printed, this code snippet causes an error

Section	2.4 Strings
Title	What is printed from the given snippet?
type	mc
section	2.4 Strings
id	testbank-py-1-ch02-50

53. What is printed by the following code snippet:

```
street = " Main Street"
address = 123 + street
print(address)
```

A. 123Main Street
B. 123 Main Street
C. 123 "Main Street"
D. nothing is printed, this code snippet causes an error

Section	2.4 Strings
Title	What is printed from the given snippet?
type	mc
section	2.4 Strings
id	testbank-py-1-ch02-51

54. The following code snippet has an error, how can this be corrected so it prints: 123 Main Street?

```
1. street = " Main Street"
2. address = 123 + street
3. print(address)
```

A. change the value '123' in line 2 to a string using the `str` function
B. reverse lines 1 and 2
C. change line 1 to read: `street = 123 + "Main Street"`
D. change line 2 to read: `address = 123 + "Main Street"`

Section	2.4 Strings
Title	What has to change to correctly print a street number and street name?
type	mc
section	2.4 Strings
id	testbank-py-1-ch02-52

55. What is printed by the following code snippet?

```
num = int("45") * float("1.5")
print(num)
```

A. nothing, this causes an error
B. `46.5`
C. `45 * 1.5`
D. `67.5`

Section	2.4 Strings
Title	What is printed by the following code snippet?
type	mc
section	2.4 Strings
id	testbank-py-1-ch02-54

56. What is the index value of the letter `'h'` in the string below ?

```
message = "hello"
```

A. `1`
B. `0`
C. `3`
D. `4`

Section	2.4 Strings
Title	What is the index value of the letter 'h' in the string below ?
type	mc
section	2.4 Strings
id	testbank-py-1-ch02-55

57. Given the code snippet below, what code is needed to print the person's initials?

```
firstName = "Pamela"
middleName = "Rose"
lastName = "Smith"
```

A. `print(firstName[1], middleName[1], lastName[1])`
B. `print(firstName[0], middleName[0], lastName[0])`
C. `print(firstName + middleName + lastName)`
D. `print(firstName, middleName, lastName)`

Section	2.4 Strings
Title	Given the code snippet below, what code is needed to print the person's initials?
type	mc
section	2.4 Strings
id	testbank-py-1-ch02-56

58. Which statement finds the last letter of the string variable `name?`

A. `last = name[len(name)]`
B. `last = len(name) - 1`
C. `last = len(name)`
D. `last = name[len(name) - 1]`

Section	2.4 Strings
Title	Which statement finds the last letter of the string variable name?
type	mc
section	2.4 Strings
id	testbank-py-1-ch02-58

59. A _____ is a collection of programming instructions that can be appllied to an object.

A. function
B. method
C. class
D. object

Section	2.4 Strings
Title	Which is the name of a collection of programming instructions that carry out a particular task to control the behavior of an object?
type	mc
section	2.4 Strings
id	testbank-py-1-ch02-59

60. A sequence of characters is referred to as a:

A. string
B. module
C. variable
D. expression

Section	2.4 Strings
Title	What is a sequence of characters?
type	mc
from	testbank-py-1-ch02-46
section	2.4 Strings
id	testbank-py-2-ch02-46

61. What is it called when you join two strings together in Python?

A. concatenation
B. addition
C. repetition
D. conversion

Section	2.4 Strings
Title	What is it called when you join two strings together in Python?
type	mc
from	testbank-py-1-ch02-48
section	2.4 Strings

id	testbank-py-2-ch02-48

62. What functions can be used to convert a string into a number?

A. `stri` and `len`
B. `int` and `float`
C. `sqrt`, `abs` and `round`
D. `integer` and `float`

Section	2.4 Strings
Title	What functions are used to convert strings to numbers?
type	mc
from	testbank-py-1-ch02-53
section	2.4 Strings
id	testbank-py-2-ch02-53

63. What output is generated by the following code snippet?

```
firstName = "Pamela"
middleName = "Rose"
lastName = "Smith"
print(firstName[0], middleName[0], lastName[5])
```

A. nothing, this causes an index of bounds error
B. `PRh`
C. `P R h`
D. `PRS`

Section	2.4 Strings
Title	Given the code snippet below, what code is printed?
type	mc
from	testbank-py-1-ch02-57
section	2.4 Strings
id	testbank-py-2-ch02-57

64. What is printed by the following code snippet?

```
name = "Robert"
formalName = name.upper()
print(formalName)
```

A. Robert
B. robert
C. ROBERT
D. formalName

Section	2.4 Strings
Title	Which is the result of the following code snippet?
type	mc
from	testbank-py-1-ch02-60
section	2.4 Strings
id	testbank-py-2-ch02-60

65. What is printed by the following code snippet?

```
name = "Robert"
formalName = name.lower()
print(formalName)
```

A. Robert

B. robert
C. ROBERT
D. formalName

Section	2.4 Strings
Title	Which is the result of the following code snippet?
type	mc
from	testbank-py-1-ch02-61
section	2.4 Strings
id	testbank-py-2-ch02-61

66. What is printed by the following code snippet?

```
name = "today is thursday"
name.replace("t", "T")
name.replace("i", "I")
print(name)
```

A. today is thursday
B. Today is Thursday
C. Today Is Thursday
D. Today Is thursday

Section	2.4 Strings
Title	Which is the result of the following code snippet?
type	mc
from	testbank-py-1-ch02-62
section	2.4 Strings
id	testbank-py-2-ch02-62

67. What is printed by the following code snippet?

```
name = "today is thursday"
newName = name.replace("t", "T")
print(newName)
```

A. today is thursday
B. Today is Thursday
C. Today Is Thursday
D. Today Is thursday

Section	2.4 Strings
Title	Which is the result of the following code snippet?
type	mc
from	testbank-py-1-ch02-63
section	2.4 Strings
id	testbank-py-2-ch02-63

68. What is the value of x after the following code segment?

```
x = len("Hello World!")
```

A. 10
B. 11
C. 12
D. 13

Section	2.4.1 The String Type

Title	Determine the length of a string
type	mc
section	2.4.1 The String Type
id	testbank-py-1-ch02-64

69. Assume that `s` is an arbitrary string containing at least 2 characters. What is displayed by the following code segment?

```
print(s[0], s[len(s) - 1])
```

A. The first character of `s`, followed immediately by the second last character of `s`.
B. The first character of `s`, followed immediately by the last character of `s`.
C. The first character of `s`, followed by a space, followed by the second last character of `s`.
D. The first character of `s`, followed by a space, followed by the last character of `s`.

Section	2.4.1 The String Type
Title	Display specific characters from a string
type	mc
section	2.4.1 The String Type
id	testbank-py-1-ch02-65

70. Which of the following symbols can be used to begin a string literal in Python?

A. `*`
B. `#`
C. `"`
D. `>`

Section	2.4.1 The String Type
Title	Which of the following symbols can be used to begin a string literal in Python?
type	mc
section	2.4.1 The String Type
id	testbank-py-2-ch02-13

71. What is the value of `words` after the following code segment?

```
words = "Hello" + "World" * 3
```

A. `"HelloWorldWorldWorld"`
B. `"Hello World World World"`
C. `"HelloWorldHelloWorldHelloWorld"`
D. `"Hello World Hello World Hello World"`

Section	2.4.2 Concatenation and Repetition
Title	String Concatenation and Repetition
type	mc
section	2.4.2 Concatenation and Repetition
id	testbank-py-1-ch02-66

72. Which of the following statements causes Python to report an error?

A. `x = 17 + 18.4`
B. `x = 17 + "18.4"`
C. `x = 17 + int(18.4)`
D. `x = 17 + float("18.4")`

Section	2.4.3 Converting Between Numbers and Strings
Title	Working with Numbers and Strings
type	mc

section	2.4.3 Converting Between Numbers and Strings
id	testbank-py-1-ch02-67

73. What letter is displayed by the following code segment?

```
title = "Python for Everyone"
print(title[3])
```

A. `e`
B. `h`
C. `o`
D. `t`

Section	2.4.4 Strings and Characters
Title	Identify a character within a string
type	mc
section	2.4.4 Strings and Characters
id	testbank-py-1-ch02-68

74. Consider the following code segment:

```
product = "Cookies"
product = product.lower()
```

After this code segment executes, the value of the `product` variable is:

A. `"cookies"`
B. `"cOOKIES"`
C. `"Cookies"`
D. `"COOKIES"`

Section	2.4.5 String Methods
Title	Trace code that invokes the lower method on a string
type	mc
section	2.4.5 String Methods
id	testbank-py-1-ch02-69

75. Consider the following code segment:

```
title = "Python for Everyone"
newTitle = title.replace("e", "*")
```

After this code runs, the value stored in `newTitle` is:

A. `"Python for *veryone"`
B. `"Python for Ev*ryone"`
C. `"Python for Ev*ryon*"`
D. `"Python for *v*ryon*"`

Section	2.4.5 String Methods
Title	Trace code that invokes the replace method on a string
type	mc
section	2.4.5 String Methods
id	testbank-py-1-ch02-70

76. What is displayed by the following code segment?

```
print("\"Hello World!\"")
```

A. `Hello World!`
B. `"Hello World!"`
C. `\"Hello World!\"`
D. The program reports an error

Section	2.4.5 String Methods
Title	Trace code that includes escape sequences
type	mc
section	2.4.5 String Methods
id	testbank-py-1-ch02-71

77. Which statement causes `A` and `B` to be printed on different lines?

A. `print("AB")`
B. `print("A,B")`
C. `print("A\nB")`
D. `print("A", "B")`

Section	2.4.5 String Methods
Title	Which statement causes A and B to be printed on different lines?
type	mc
section	2.4.5 String Methods
id	testbank-py-2-ch02-102

78. Which statement correctly saves the price in the variable `cost?`

```
userInput = input("Please enter the price:")
```

A. `cost = float(userInput)`
B. `cost = userInput`
C. `cost = int(userInput)`
D. `cost = float[userInput]`

Section	2.5 Input and Output
Title	Which statement correctly saves the price in the variable cost?
type	mc
section	2.5 Input and Output
id	testbank-py-1-ch02-75

79. Which statement correctly saves the number of items in the variable `quantity?`

```
userInput = input("Please enter the quantity:")
```

A. `quantity = float(userInput)`
B. `quantity = userInput`
C. `quantity = int(userInput)`
D. `quantity = int[userInput]`

Section	2.5 Input and Output
Title	Which statement correctly saves the price in the variable quantity?
type	mc
section	2.5 Input and Output
id	testbank-py-1-ch02-76

80. What is printed by the following code snippet?

```
cost = 25.45378
print("%.2f" % cost)
```

A. `25.45378`

B. `%25.45`
C. `25.45`
D. nothing, there is an error

Section	2.5 Input and Output
Title	Which is printed by the following code snippet?
type	mc
section	2.5 Input and Output
id	testbank-py-1-ch02-77

81. Which output format string correctly allows for 5 positions before and two digits after the decimal point?

A. `"%8.2f"`
B. `"%5.2f"`
C. `"%7.2f"`
D. `"%5d.2f"`

Section	2.5 Input and Output
Title	Which output format string correctly allows for 5 positions before and two digits after the decimal point?
type	mc
section	2.5 Input and Output
id	testbank-py-1-ch02-78

82. Which output format correctly prints an item description left justified with up to 10 letters?

A. `"%10"`
B. `"%10s"`
C. `"%-10s"`
D. `"-%10s"`

Section	2.5 Input and Output
Title	Which output format correctly prints an item description left justified with up to 10 letters?
type	mc
section	2.5 Input and Output
id	testbank-py-1-ch02-79

83. What is the output for the following code snippet:

```
area = 25
print("The area is %05d" % area)
```

A. `The area is 25`
B. nothing, there is an error in the code snippet
C. `The area is 00025`
D. `The area is 25`

Section	2.5 Input and Output
Title	What is the output for the following code snippet?
type	mc
section	2.5 Input and Output
id	testbank-py-1-ch02-80

84. What function is used to read a value from the keyboard?

A. `input`
B. `print`
C. `keyboard`
D. `next`

Section	2.5 Input and Output
Title	What function is used to read input from the keyboard?
type	mc
from	testbank-py-1-ch02-72
section	2.5 Input and Output
id	testbank-py-2-ch02-72

85. The message used to tell the user what input is expected is known as a(n):

A. input
B. keyword
C. comment
D. prompt

Section	2.5 Input and Output
Title	The message used to tell the user what input is expected is known as a(n):
type	mc
from	testbank-py-1-ch02-73
section	2.5 Input and Output
id	testbank-py-2-ch02-73

86. What is the data type of the value returned by the input function?

A. integer
B. string
C. float
D. character

Section	2.5 Input and Output
Title	What is the data type of the value returned by the input function?
type	mc
from	testbank-py-1-ch02-74
section	2.5 Input and Output
id	testbank-py-2-ch02-74

87. Consider the following code segment:

```
a = input("Enter the value of a: ")
b = input("Enter the value of b: ")
print(a + b)
```

When this code segment is run the user enters 1 at the first prompt and 5 at the second prompt. The output displayed is:

A. `1`
B. `6`
C. `15`
D. `1 + 5`

Section	2.5.1 User Input
Title	Trace code that reads two values from the user
type	mc
section	2.5.1 User Input
id	testbank-py-1-ch02-81

88. The line of code which reads a value from the user and stores it in a variable named `x` as a floating-point value is:

A. `x = float()`
B. `x = input("Enter the value of x: ")`

C. `x = float(input("Enter the value of x: "))`
D. `x = input(float())`

Section	2.5.2 Numerical Input
Title	Read numerical input from the user
type	mc
section	2.5.2 Numerical Input
id	testbank-py-1-ch02-82

89. The line of code that displays the floating point number stored in the variable `x` using 3 decimal places is:

A. `print("%.3f", x)`
B. `print("%.3f" % x)`
C. `print("%3.f", x)`
D. `print("%3.f" % x)`

Section	2.5.3 Formatted Output
Title	Format output to 3 decimal places
type	mc
section	2.5.3 Formatted Output
id	testbank-py-1-ch02-83

90. What output is generated by the following code segment?

```
a = 10.0
b = 0.50
print("The total is %.2f and the tax is %.2f." % (a, b))
```

A. `The total is .00 and the tax is .50`
B. `The total is 10.0 and the tax is 0.5`
C. `The total is 10.0 and the tax is 0.50`
D. `The total is 10.00 and the tax is 0.50`

Section	2.5.3 Formatted Output
Title	Format multiple values in a single output statement
type	mc
section	2.5.3 Formatted Output
id	testbank-py-1-ch02-84

91. Consider the following code segment:

```
x = 12
print("%d%%" % x)
```

The output generated by this code segment is:

A. `12`
B. `%12`
C. `12%`
D. `12%%`

Section	2.5.3 Formatted Output
Title	Format integer output
type	mc
section	2.5.3 Formatted Output
id	testbank-py-1-ch02-85

92. A graphics application shows information inside a _____

A. panel

B. window
C. form
D. page

Section	2.6 Graphics: Simple Drawings
Title	A graphics application shows information inside a _____
type	mc
section	2.6 Graphics: Simple Drawings
id	testbank-py-1-ch02-86

93. Which statement draws a square on the canvas?

A. `canvas.drawRect(0, 50, 0, 50)`
B. `canvas.drawRect(50, 50, 0, 0)`
C. `canvas.drawRect(0, 0, 50, 100)`
D. `canvas.drawRect(0, 0, 50, 50)`

Section	2.6 Graphics: Simple Drawings
Title	Which statement draws a square on the canvas?
type	mc
section	2.6 Graphics: Simple Drawings
id	testbank-py-1-ch02-87

94. Which statement sets the fill color when drawing shapes on the canvas?

A. `canvas.setOutline("black")`
B. `canvas.setFill("black")`
C. `canvas.fill("black")`
D. `canvas.fillRect("black")`

Section	2.6 Graphics: Simple Drawings
Title	Which statement fills a shape?
type	mc
section	2.6 Graphics: Simple Drawings
id	testbank-py-1-ch02-88

95. Which statement writes the word `Hello` on the canvas?

A. `canvas.setString(10, 10, "Hello")`
B. `canvas.setText(10, 10, "Hello")`
C. `canvas.drawText(10, 10, "Hello")`
D. `canvas.drawString(10, 10, "Hello")`

Section	2.6 Graphics: Simple Drawings
Title	Which statement writes test to the canvas?
type	mc
section	2.6 Graphics: Simple Drawings
id	testbank-py-1-ch02-89

96. Which of the given print statements generates the following output?

```
ABCDE"\
```

A. `print("ABCDE\"\\")`
B. `print("ABCDE"\")`
C. `print("ABCDE"\)`
D. `print("ABCDE\"\")`

Section	2.6 Graphics: Simple Drawings
Title	Which print statement generates output with quote and backslash?
type	mc
section	2.6 Graphics: Simple Drawings
id	testbank-py-1-ch02-90

97. Which statement imports the entire contents of the `sympy` module?

A. `from sympy import *`
B. `import contents`
C. `import * from sympy`
D. `sympy import`

Section	2.6 Graphics: Simple Drawings
Title	Which statement imports the entire contents of the sympy module?
type	mc
section	2.6 Graphics: Simple Drawings
id	testbank-py-2-ch02-94

98. Which statement creates an expression in SymPy form?

A. `f = x ** 2`
B. `f = sympify("x ** 2")`
C. `f = sympy(x ** 2)`
D. `sympy("f = x ** 2")`

Section	2.6 Graphics: Simple Drawings
Title	Which statement creates an expression in SymPy form?
type	mc
section	2.6 Graphics: Simple Drawings
id	testbank-py-2-ch02-95

99. Which SymPy function is used to display a graph of a mathematical function?

A. `diff`
B. `draw`
C. `plot`
D. `subs`

Section	2.6 Graphics: Simple Drawings
Title	Which SymPy function is used to display a graph of a mathematical function?
type	mc
section	2.6 Graphics: Simple Drawings
id	testbank-py-2-ch02-96

100. Consider the following code segment:

```
from graphics import GraphicsWindow

win = GraphicsWindow(400, 200)
canvas = win.canvas()
```

The line of code that should be added to the end of the code segment above to draw a diagonal line connecting the upper left corner to the lower right corner is:

A. `canvas.drawLine(0, 0, 0, 0)`
B. `canvas.drawLine(0, 0, 200, 400)`
C. `canvas.drawLine(200, 400, 400, 200)`
D. `canvas.drawLine(400, 200, 0, 0)`

Section	2.6.2 Lines and Polygons
Title	Draw a diagonal line on a canvas
type	mc
section	2.6.2 Lines and Polygons
id	testbank-py-1-ch02-91

101. The statement that sets the fill color to red is:

A. `canvas.setFill(0, 128, 0)`

B. `canvas.setFill(64, 0, 128)`
C. `canvas.setFill(64, 255, 64)`
D. `canvas.setFill(128, 0, 0)`

Section	2.6.3 Filled Shapes and Color
Title	Which statement sets the fill color to red?
type	mc
section	2.6.3 Filled Shapes and Color
id	testbank-py-1-ch02-92

102. Which of the following statements draws a circle?

A. `canvas.drawOval(100, 200, 100, 200)`
B. `canvas.drawOval(200, 100, 200, 200)`
C. `canvas.drawOval(200, 200, 100, 200)`
D. `canvas.drawOval(200, 200, 200, 100)`

Section	2.6.4 Ovals, Circles and Text
Title	Which statement draws a circle?
type	mc
section	2.6.4 Ovals, Circles, and Text
id	testbank-py-1-ch02-93