Python - Data Types

|  |
| --- |
| 1. What is the type of the following: 1 A) float B) int C) str  Answer: int  Explanation: As there is no decimal, the number is of type int |
| 2. What is the type of the following "7.1" A) float B) int C) str  Answer: str  Explanation: The type is string |
| 3. What is the result of the following code segment: int(12.3) A) 12.3 B) 12 C) 13  Answer: 12  Explanation In Python if you cast a float to an integer the conversion truncates towards zero. |
| 4. What is the result of the following code segment: int(True) A) 1 B) 0 C) error  Answer: 1  Explanation: When you cast a boolean True to an integer you get a 1 |

**View Answer**

**01. In the Python statement x = a + 5 – b:**

**a and b are \_\_\_\_\_\_\_\_**

**a + 5 - b is \_\_\_\_\_\_\_\_**

1. terms, a group
2. operators, a statement
3. operands, an expression
4. operands, an equation

**View Answer**

Answer : C  
Explanation: The objects that operators act on are called operands. An expression involving operators and operands is called an expression So, option C is correct.

**02. Which is the correct operator for power(xy)?**

1. X^y
2. X\*\*y
3. X^^y
4. None of the mentioned

**View Answer**

Answer : B  
Explanation: In python, power operator is x\*\*y i.e. 2\*\*5=32.

**03. What is the output of the following addition (+) operator**

a = [10, 20]

b = a

b += [30, 40]

print(a)

print(b)

1. [10, 20, 30, 40]  
   [10, 20, 30, 40]
2. [10, 20]  
   [10, 20, 30, 40]
3. [10, 20, 10, 20]  
   [10, 20, 30, 40]
4. [10, 20]  
   [30, 40]

**View Answer**

Answer : A  
Explanation: Because since b and a reference to the same object, when we use the addition assignment operator += on b, it changes both a and b.

**04. Which function overloads the >> operator?**

1. more()
2. gt()
3. ge()
4. None of the above

**View Answer**

Answer : D  
Explanation: rshift() function overloads the >> operator

[**Q.1  What is pass in Python?**](https://www.360digitalgyan.com/what-is-pass-in-python)

 22 Mar,2019   Reveal Answer

15  0 Comments  0 Likes

Pass means, no-operation Python statement, or in other words it is a place holder in compound statement, where there should be a blank left and nothing has to be written there

[**Q.2  What Does The Continue Do In Python?**](https://www.360digitalgyan.com/what-does-the-continue-do-in-pythonnbsp)

 22 Mar,2019   Reveal Answer

15  0 Comments  0 Likes

The continue is a jump statement in Python which moves the control to execute the next iteration in a loop leaving all the remaining instructions in the block unexecuted.

The continue statement is applicable for both the “while” and “for” loops.

[**Q.3  When Should You Use The “Break” In Python?**](https://www.360digitalgyan.com/when-should-you-use-the-ldquobreakrdquo-in-pythonnbsp)

 22 Mar,2019   Reveal Answer

18  0 Comments  0 Likes

Python provides a break statement to exit from a loop. Whenever the break hits in the code, the control of the program immediately exits from the body of the loop.

The break statement in a nested loop causes the control to exit from the inner iterative block.

[**Q.4  What Is The Difference Between Pass And Continue In Python?**](https://www.360digitalgyan.com/what-is-the-difference-between-pass-and-continue-in-pythonnbsp)

 22 Mar,2019   Reveal Answer

18  0 Comments  0 Likes

The continue statement makes the loop to resume from the next iteration.

On the contrary, the pass statement instructs to do nothing, and the remainder of the code executes as usual

[**Q.1  What Is A Built-In Function That Python Uses To Iterate Over A Number Sequence?**](https://www.360digitalgyan.com/what-is-a-built-in-function-that-python-uses-to-iterate-over-a-number-sequence)

 22 Mar,2019   Reveal Answer

17  0 Comments  0 Likes

Range() generates a list of numbers, which is used to iterate over for loops.

The range() function accompanies two sets of parameters.

range(stop)

stop: It is the no. of integers to generate and starts from zero. eg. range(3) == [0, 1, 2].

range([start], stop[, step])

Start: It is the starting no. of the sequence.

Stop: It specifies the upper limit of the sequence.

Step: It is the incrementing factor for generating the sequence.

**[Q.3](https://www.360digitalgyan.com/phow-does-for-loop-and-while-loop-differ-in-python-and-when-do-you-choose-to-use-themp)**

**[How does For loop and While loop differ in Python and when do you choose to use them?](https://www.360digitalgyan.com/phow-does-for-loop-and-while-loop-differ-in-python-and-when-do-you-choose-to-use-themp)**

 11 Feb,2020   Reveal Answer

54  0 Comments  0 Likes

For loop is generally used to iterate through the elements of various collection types such as List, Tuple, Set, and Dictionary.

While loop is the actual looping feature that is used in any other programming language. This is how Python differs in handling loops from the other programming languages.

Question 5.  
Write a code to print the following pattern:  
\*  
\*\*  
\*\*\*  
\*\*\*\*  
Answer:

for i in range(1,5):

print("\*"\*i

Question 4.  
What will be the output for the following code?

i = 6

**while** **True**:

**if** i%4 == 0:

**break**

print(i)

i -= 2

Answer:  
6

[**Q.1  What is lambda in Python?**](https://www.360digitalgyan.com/what-is-lambda-in-python)

 22 Mar,2019   Reveal Answer

16  0 Comments  0 Likes

anonymous function means that a function is without a name. As we already know that def keyword is used to define the normal functions and the lambda keyword is used to create anonymous functions.  
  
**lambda arguments: expression**

[**Q.2  Mention what are the rules for local and global variables in Python?**](https://www.360digitalgyan.com/mention-what-are-the-rules-for-local-and-global-variables-in-python)

 22 Mar,2019   Reveal Answer

16  0 Comments  0 Likes

**Local variables**: If a variable is assigned a new value anywhere within the function's body, it's assumed to be local.

**Global variables**: Those variables that are only referenced inside a function are implicitly global

[**Q.3  Mention the use of the split function in Python?**](https://www.360digitalgyan.com/mention-the-use-of-the-split-function-in-python)

 22 Mar,2019   Reveal Answer

16  0 Comments  0 Likes

The use of the split function in Python is that it breaks a string into shorter strings using the defined separator. It gives a list of all words present in the string.

[**Q.4  What Are The Principal Differences Between The Lambda And Def?**](https://www.360digitalgyan.com/what-are-the-principal-differences-between-the-lambda-and-def)

 22 Mar,2019   Reveal Answer

16  0 Comments  0 Likes

**Lambda Vs. Def.**

1. Def can hold multiple expressions while lambda is a uni-expression function.
2. Def generates a function and designates a name to call it later. Lambda forms a function object and returns it.
3. Def can have a return statement. Lambda can’t have return statements.
4. Lambda supports to get used inside a list and dictionary.