

Python Primer Knowledge Check

What is Python's primary method for grouping statements into blocks, such as the body of a loop?

- ☒ **Correct:** Using indentation Correct answer
- ☐ Using curly braces { } around the block
- ☐ Enclosing the block with 'begin' and 'end' keywords
- ☐ placing the block inside parentheses ().



That's correct!

In Python's interactive mode, what does the special variable ``_`` represent?

- ☐ A convention for a variable that should be ignored.
- ☐ A temporary variable that can be used for any purpose.
- ☒ **Correct:** The value of the last printed expression. Correct answer
- ☐ The last error message that occurred.



That's correct!

Given the list ``letters = ['a', 'b', 'c', 'd', 'e', 'f', 'g']``, which operation will change the list to ``['a', 'b', 'f', 'g']``?

- ☐ `letters = letters[0:2] + letters[4:7]`
- ☐ `letters.remove(['c', 'd', 'e'])`
- ☒ **Correct:** `letters[2:5] = []` Correct answer
- ☐ `letters[2:4] = []`





That's correct!

After executing the following lines of code, what is the value of the `rgb` list?

```
rgb = ['Red', 'Green', 'Blue']  
rgba = rgb  
rgba.append('Alph')
```

- ☐ The code causes an error because `rgba` was not initialised using square brackets.
- ☐ ['Red', 'Green', 'Blue']
- ☒ **Correct:** ['Red', 'Green', 'Blue', 'Alph'] Correct answer
- ☐ ['Alph']



That's correct! Because simple assignment in Python never copies data. When you assign a list to a variable, the variable refers to the existing list. Any changes you make to the list through one variable will be seen through all other variables that refer to it.

What is the result of the expression `(50 - 5 * 6) / 4` in Python?

- ☐ 5
- ☒ **Correct:** 5.0 Correct answer
- ☐ 20.0
- ☐ 8.75



That's correct!

For the Python code block given below, under which specific condition will the `else` clause be executed?

```
for n in range(2, 10):  
    for x in range(2, n):  
        if test_condition:  
            print(n, 'equals', x, '*', n//x)  
            break  
    else:  
        print(n, 'is a prime number')
```

- ☐ The sequence being iterated over is empty from the start.
- ☐ The loop is terminated by a `return` statement within a function.
- ☒ **Correct:** The inner loop completes all iterations without encountering a `break` statement. Correct answer
- ☐ You can't couple an `else` with a `for`, this block will cause a `Syntax Error`



That's correct!

What kind of object does the `range()` function return in Python?

- ☐ A special generator function that can only be iterated over once.
- ☒ **Correct:** An iterable object that generates numbers on demand. Correct answer
- ☐ A list containing all the numbers in the specified range.
- ☐ A tuple of numbers which is an immutable sequence.



That's correct! This object behaves like a list in many ways but produces the numbers as they are needed during iteration, making it more memory-efficient.

In a Python `match` statement, what is the primary function of the underscore (`_`) when used as a pattern in a `case` block?

- ☐ It binds the subject's value to a temporary variable named `_`
- ☐ It indicate that this case block should be ignored by the interpreter.



It specifically matches only the values `None`.



Correct: It acts as a wildcard that matches any value without binding it to a name.

Correct answer



That's correct!