

## ✓ Congratulations! You passed!

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Grade received 100% Latest Submission Grade 100% To pass 80% or higher

1. Which of the following describes one true quality about Python variables?

1 / 1 point

- ☐ Python does not have a concept of a variable scope, which means that variables can be accessed from any part of the code.
- ☒ Variables in Python are not typed, which means that they can store any type of data.
- ☐ Variables in Python don't need to be declared before they are used.
- ☐ Variables in Python are not case-sensitive.

✓ Correct

Correct! Variables in Python aren't typed, that is you aren't required to declare or know what the type is for the value you want to assign

2. What is a valid statement about Python lists?

1 / 1 point

- ☐ Lists cannot contain any arbitrary object. Just integers and strings.
- ☐ Lists are immutable, that is - they can't be changed after they are created
- ☒ Lists are indexed starting from 0

✓ Correct

Correct! In Python the first item in a list has an index of 0.

3. What is a valid statement about Python dictionaries?

1 / 1 point

- ☐ A dictionary cannot contain nested dictionaries
- ☐ A dictionary can only contain string values
- ☒ Python dictionaries cannot have a dictionary as a key

✓ Correct

Correct! Keys have to be a type that is *hashable*, and Python dictionaries aren't *hashable* and will result in an error if you try to use them as a key.

4. What is a valid statement for Python tuples?

1 / 1 point

- ☐ Tuples are created by placing comma-separated values within curly brackets
- ☐ Tuples are mutable. They can be modified once they are created.
- ☒ Tuples are immutable. They cannot be modified once they are created.

✓ Correct

Correct! Tuples are like read-only lists. Once defined (created) you cannot modify them.

5. What are three valid methods for Python lists?

1 / 1 point

- ☐ clear, remove, describe
- ☒ pop, append, extend
- ☐ add, index, sort

✓ Correct

Correct! These are three valid methods you can use in Python lists

6. What are three valid methods for Python dictionaries?

1 / 1 point

- ☐ copy, update, append

☐ copy, update, append

☐ values, extend, get

☒ get, items, values

✓ **Correct**

Correct! These are three valid methods you can use with Python dictionaries.

7. What would you use to retrieve a value in a Python dictionary from a key named `"item"` that might not exist, preventing an exception and using `True` as a fallback?

1 / 1 point

☐ `obj.get(True, "item")`

☒ `obj.get("item", True)`

☐ `obj.safe_get("item", True)`

✓ **Correct**

Correct! That is how you would retrieve the value for `"item"` even if it doesn't exist and fallback to `True`

8. What is the right syntax to loop over keys and values from a dictionary named `obj`?

1 / 1 point

☐ `for key, value in obj`

☒ `for key, value in obj.items()`

☐ `for key, value in obj()`

✓ **Correct**

Correct! You can use `.items()` to provide both the keys and values when looping over a dictionary.

9. Can you add two lists like `[1,2,3] + [4,5,6]`? What would happen if you do?

1 / 1 point

☒ Yes. You would get `[1,2,3,4,5,6]`

☐ No. You would get a `TypeError`

☐ Yes. You would get `[[1,2,3], [4,5,6]]`

✓ **Correct**

Correct! You can add two lists together in Python.

10. What is one useful quality of Python sets?

1 / 1 point

☐ That sets can use indexes just like lists

☒ That its contents are guaranteed to be unique.

☐ That it is an immutable data structure

✓ **Correct**

Correct! Python sets are a useful data structure that ensures that the items it has are unique.