

## **Print():**

### **Question 1**

Write a Python code that prints the sentence: "Python is fun!".

### **Question 2**

Print the message "Learning Python is easy!".

### **Question 3**

Print a variable `c = 100` using the print function.

### **Question 4**

Print the values of two variables, `a = 10` and `b = 20`, in the same line.

### **Question 5**

Print the sum of `x = 15` and `y = 25`.

### **Question 6**

Print the following list `[1, 2, 3, 4, 5]` as a string.

### **Question 7**

Write a Python code that prints the sentence: Data science is exciting!.

### **Question 8**

Print the values of two variables, `x = 15.75` and `y = -90.00`, on the same line.

### **Question 9**

Joey has been tasked with solving some math problems to unlock the door to the hidden library. He needs to:

- Add 10 and 15
- Multiply 7 and 8
- Divide 56 by 7
- Subtract 300 from 450

Task:

Help Joey to write a Python program that performs these operations and prints the results.

## **Type():**

### **Question 10**

The **type()** function is mostly used for debugging purposes. Two different types of arguments can be passed to `type()` function, single and three arguments. If a single argument `type(obj)` is passed, it returns the type of the given object. If three argument types (object, bases, dict) are passed, it returns a new type object.

Determine the type of the variable `x` where `x = 5.5`.

**Question 11**

Find the type of y where  $y = [1, 2, 3]$ .

**Question 12**

Determine the type of m where  $m = 3 + 4j$ .

**Question 13**

What is the type of a variable data = {'key': 'value'}.

**Question 14**

Determine the type of name where name = "John".

**Question 15**

Check the type of a variable b where b = True.

**Question 16**

Determine the type of the variable status where status = None.

**format():****Question 17**

The **format()** method is a powerful tool that allows developers to create formatted strings by embedding variables and values into placeholders within a template string. This method offers a flexible and versatile way to construct textual output for a wide range of applications. Python string format() function has been introduced for handling complex string formatting more efficiently. Sometimes we want to make generalized print statements in that case instead of writing print statements every time we use the concept of formatting.

Format the string "Hello, {}" to include the name "Alice".

**Question 18**

Format the number 3.14159 to display only two decimal places.

**Question 19**

Format the string "Welcome to {}" with the name of a city "New York".

**Question 20**

Format the string "You have {} new messages" with the number 7.

**Question 21**

Format the string "The price is {} dollars" to include price = 50.

**Question 22**

Format the string "Coordinates: ({}, {})" to include x = 10 and y = 20.

**Question 23**

Format the string "Warm welcome, {}" to include the name "Ben"

**Question 24**

Format the number 8.7654 to display only two decimal places.

**Question 25**

Format the string "Greetings, {}!" to include the name "Sarah".

**Question 26**

Format the number 9.8765 to display only one decimal place.

**Question 27: Personalized Invitation Generator**

**Scenario:** You are creating a personalized invitation generator for an event. Write a Python program that takes the guest's name, the event name, and the date as input. The program should then generate a personalized invitation message using the format() function, such as "Dear [name], you are invited to [event] on [date]."

**Question 28: Travel Expense Calculator**

**Scenario:** You are planning a trip and want to calculate your travel expenses. Write a Python program that takes the distance of the trip in kilometers and the cost per kilometer as input. The program should then calculate and print the total travel expense using the input() and format() functions.

**Id():****Question 29**

In Python, **id()** function is a built-in function that returns the unique identifier of an object. The identifier is an integer, which represents the memory address of the object. The **id()** function is commonly used to check if two variables or objects refer to the same memory location.

Find the id of the variable `z = 100`.

**Question 30**

Check if the ids of two variables, `a = 50` and `b = 50`, are the same or not.

**Question 31**

Get the id of an integer `num = 5`.

**Question 32**

Check if the ids of two lists `a = [1, 2, 3]` and `b = [1, 2, 3]` are the same.

**Question 33**

Find the id of the string `s = "hello"`.

**Question 34**

Check if the ids of two variables, `a = 256` and `b = 256`, are same or not.

**Question 35**

Find the id of the variable `z = "foo"`.

**Question 36**

Find the id of the variable `a = "bar"`.