

Gen-Z IITian

Python – Week 1 Homework

Based on Week 1 Lectures

Prepared by: Sriram (Gen-Z IITian)

Course: IITM BS – Foundation Term

Community: Curious Sri / Gen-Z IITian

September 18, 2025

Homework Questions – Week 1

Part A – Conceptual (Short Answer)

- Q1. What is the difference between a **variable** and a **literal** in Python? Give an example.
- Q2. Why do we need to use `int()` with `input()` sometimes?
- Q3. What happens if you use a variable that is not defined in Python?
- Q4. Explain the difference between `=` and `==` in Python with an example.
- Q5. What is **operator precedence**? Give an example where brackets change the result.

Part B – Output Based

- Q6. Predict the output of:

```
a = 5
a = a + 1
print(a)
```

- Q7. Predict the output of:

```
x = "GenZ"
y = "IITian"
print(x + y)
```

- Q8. What will this code print?

```
print(bool(0), bool(5), bool(""))
```

Part C – Coding Exercises

- Q9. Write a Python program to ask the user's name and city, then print:
Hello <name> from <city>, welcome to Python!

- Q10.** Write a program to take radius `r` as input and print the area of a circle.
- Q11.** Write a program that asks for two numbers and prints their sum, difference, product, and quotient.
- Q12.** Write a program to replicate the string `"Python"` 3 times using the replication operator.

Part D – Debugging & Errors

- Q13.** Find the error in this code and correct it:

```
name = input("Enter your name: ")
print("Hello", Name)
```

- Q14.** What error occurs if you try to access `s[5]` in the string `s = "abcde"`?

Part E – Application / Thinking

- Q15.** `"4" < "10"` in Python returns `False`. Explain why, and how can you fix it if you want numeric comparison.