

Exercise Questions

Q1

Data Types & Typecasting

Write a Python program that:

Declares a variable $x = 15.7$.

Converts x to an integer and a string, then prints all three values with appropriate labels.

Q2

Math and Comparison Operators

Ask the user to input two numbers.

Compute and display their sum

Q3

Boolean Operators

Ask the user to input their age and whether they are a student (True/False).

Use and, or, and not to check:

If the person is between 18 and 60 **and** is a student.

If the person is **not** a student or is younger than 18.

Print the result of each condition.

Q4

If-elif-else Statement

Write a program that takes a student's marks (out of 100) and prints the grade:

90–100 → "A"

80–89 → "B"

70–79 → "C"

60–69 → "D"

Below 60 → "F"

Use if, elif, and else.

Q5

While Loop with break

Write a program that keeps asking the user to enter numbers until they type 0.

If the user enters a negative number, print "Negative numbers are not allowed." and **exit the loop immediately** using break.

Q6

For Loop with range()

Use a for loop with range() to print the **multiplication table of 7** from 1 to 10 (i.e., 7×1 , 7×2 , ..., 7×10).

Q7

For Loop with range() arguments

Use for and range(start, stop, step) to:

Print all **odd numbers** from 1 to 15.

Print all **even numbers** from 20 down to 2 (in descending order).

Q8

Custom Function (No Return)

Define a function called `greet_user(name, age)` that:

Prints "Hello, <name>! You are <age> years old."

Call the function with sample values from the user input.

Q9

Custom Function with Return

Define a function `calculate_area(length, width)` that returns the area of a rectangle.

Ask the user to input length and width.

Call the function and print the result.