Assignment No 1

Week 1

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Use print, input, arithmetic operation, logical condition

Be creative to show your skills in Python.

Create separate file for each question

Write question at the top of each file as comments of code.

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Question 1:

Write a program that converts a temperature from Celsius to Fahrenheit. (Formula: Fahrenheit = (Celsius * 9/5) + 32)

Question 2:

Calculate Area of a Rectangle

Question 3:

Calculate Compound Interest

Use the formula:

CI = P * (1 + R/100)**T - P

Where P = principal, R = rate, T = time

Question 4:

Perimeter of a Rectangle - Take length and width as input and calculate the perimeter.

Question 5:

Average of Three Numbers - Input three numbers and print their average.

Question 6:

Square and Cube of a Number - Ask the user for a number and display its square and cube.

Question 7:

Distribute Items Equally - You have n candies and k students.

Write a program to find:

how many candies each student gets

how many are left

Question 8:

Calculate Profit or Loss

Input cost price and selling price. Display either:

Profit and amount, or

Loss and amount, or

No Profit No Loss

Question 9:

Total Marks and Percentage

Input marks of 5 subjects. Print:

- Total marks
- Percentage
- Average

Question 10:

Salary Calculator

Input basic salary. Calculate:

- HRA = 20% of basic
- DA = 15% of basic
- Total Salary = Basic + HRA + DA

Question 11:

Age in Months and Days

Input your age in years. Calculate and print age in:

- Months
- Days (approximate)

Question 12:

Currency Converter (USD to PKR)

Input amount in USD. Convert using a fixed exchange rate.

Question 13:

Sum of First N Natural Numbers

Input a number n, calculate sum of first n natural numbers.
*Formula: sum = n * (n + 1) / 2*

Question 14:

Percentage of Correct Answers

Input total questions and correct answers, and calculate the percentage score.

Question 15:

Speed, Distance, and Time

Input distance and time, and calculate speed.

Question 16:

Calculate Body Mass Index (BMI)

Input weight (kg) and height (m), then calculate:
BMI = weight / (height ** 2)

Question 17:

Convert Minutes to Hours and Minutes

Input number of minutes and convert to hours and remaining minutes.
Example: 130 minutes → 2 hours 10 minutes