Conditional Statements Practice Questions

1. Check Even or Odd

Write a program that takes an integer input from the user and prints whether the number is even or odd.

number = int(input("Enter a number: "))

# Your code here

1. Grade Evaluation

Write a program that takes a score (0-100) from the user and prints the corresponding grade based on the following criteria:

90-100: A

80-89: B

70-79: C

60-69: D

Below 60: F

score = int(input("Enter your score: ")) # Your code here

1. Temperature Check

Write a program that takes a temperature input from the user and prints:

"It's hot!" if the temperature is above 30 degrees,

"It's warm!" if the temperature is between 20 and 30 degrees,

"It's cold!" if the temperature is below 20 degrees.

temperature = float(input("Enter the temperature: "))

# Your code here

1. Vowel or Consonant

Write a program that takes a single character input from the user and prints whether the character is a vowel or a consonant.

char = input("Enter a character: ") # Your code here

1. Leap Year Check

Write a program that takes a year as input from the user and checks if the year is a leap year or not. (A year is a leap year if it is divisible by 4, but not by 100 unless it is also divisible by 400.)

SET 1

For each of the questions below use both a for and while loop to solve it

1. Print even numbers between 1 and 20:
2. Print elements of a list along with their indices.
3. Sum of the first 10 natural numbers:
4. Print prime numbers between 1 and 50:
5. Print the elements of a list that are greater than 10

numbers = [4, 11, 7, 15, 2, 19, 5]

SET 2

Choose between for or while loop or you can do both (you are encouraged to do both)

1. Count Vowels in a String

Write a for loop that counts the number of vowels in the string "OpenAI".

1. Calculate the sum of digits of a number (e.g., 1234)
2. Remove duplicates from a list of numbers = [1, 2, 3, 2, 4, 1, 5, 3]
3. Find the Maximum in a List of numbers = [3, 5, 7, 2, 8, 1, 4]
4. Print the first 10 terms of the series 1, 4, 9, 16, ... (squares of natural numbers)

Intermediate-level questions (if you want a challenge!!!!!!!!)

A while loop can be used to solve the questions below, so if you do decide to attempt, you can try using a while loop afterward.

1. Write a for loop that reverses the string "Python".

string = "Python"

1. Sum of Elements in a List of Lists

Write a for loop that calculates the sum of all the elements in a list of lists, e.g., [[1, 2, 3], [4, 5, 6], [7, 8, 9]].

1. Fibonacci Sequence

Write a for loop to print the first 10 numbers of the Fibonacci sequence.

1. Check for Prime Numbers

Write a for loop that checks if a given number n is a prime number.

1. Transpose a Matrix

Write a for loop to transpose a 2x2 matrix. For example, given [[1, 2], [3, 4]], the transposed matrix is [[1, 3], [2, 4]].

Try to solve as many as you can!