

Exercise 1: Variables and Data Types

1. Create a variable called name and assign your name to it. Print the value of the name variable.
2. Create two variables, num1 and num2, and assign them any numeric values of your choice. Calculate their sum and print the result.
3. Create a variable sentence and assign a string of your choice to it. Print the length of the sentence.
4. Create a variable pi and assign the value of pi (3.14159) to it. Round the value of pi to two decimal places and print it.

Exercise 2: Conditional Statements and Loops

1. Write a program that asks the user to enter a number. If the number is positive, print "Positive number." If it is negative, print "Negative number." If it is zero, print "Zero."
2. Write a program that prints all the even numbers from 1 to 20.
3. Write a program that asks the user to enter a number. If the number is prime, print "Prime number." Otherwise, print "Not a prime number."

Exercise 3: Functions

1. Write a function called calculate_average that takes in three numbers as parameters and returns their average.
2. Write a function called is_palindrome that takes in a string as a parameter and returns True if the string is a palindrome (reads the same forwards and backwards) and False otherwise.
3. Write a function called factorial that takes in a number as a parameter and returns its factorial.
4. Write a function called print_fibonacci that takes in a number n as a parameter and prints the first n numbers in the Fibonacci sequence.

Exercise 4: Lists and Dictionaries

1. Create a list called numbers that contains the numbers 1 to 10. Print the list.
2. Write a program that prompts the user to enter five names and stores them in a list called names. Print the list of names.
3. Create a dictionary called student with the keys "name", "age", and "grade". Assign appropriate values to each key and print the dictionary.
4. Write a program that counts the frequency of each character in a given string and stores the results in a dictionary. Print the dictionary.
5. These exercises should provide you with a good starting point for practicing Python programming. Feel free to modify or expand upon them as you see fit. Happy coding!