Course: Introduction to Programming Using Python

Module 4. Functions. Part 3

Task 1

Write a recursive function to find the power of a number.

Task 2

Write a recursive function that calculates the sum of all numbers in the range from a to b. The user types in a and b. Illustrate how the function works with an example.

Task 3

Write a recursive function that prints N asterisks in a row, N is set by the user. Illustrate how the function works with an example.

Task 4

Develop a game of Tic-tac-toe.

Task 5

Write a recursive function that takes a list of 100 random integers and finds the position at which a sequence of 10 numbers begins, and their sum must be the smallest.

Task 6

Write a function that takes two dates (i.e., the function takes six parameters) and calculates the difference in days between those dates. To solve this problem, you should also write a function that checks if the year is a leap year.