Introduction to Python Week 1

Exercises:

a) Write a program that prints Hello World! onto the screen

b) Write a program that asks the user for their name and then greets them

c) Write a program that asks the user for the radius of a circle and then prints the area of the circle on the screen

d) Write a program that asks the user for a number n and prints the sum of the numbers 1 to n

e) Write a program that prints a multiplication table for numbers up to 12.

f) Write a program that asks for a number and then prints the square root of that number, if it is a square number.

g) Write a program that concatenates two lists. E.g., [a,b,c], [1,2,3] → [a,b,c,1,2,3]

h) Write a function that combines two lists by alternatingly taking elements, e.g. [a,b,c], [1,2,3] → [a,1,b,2,c,3].

i) Write a program that asks the user to input a year and tells us if it is a leap year
    I. A year may be a leap year if it is evenly divisible by 4.
    II. Years that are divisible by 100 cannot be leap years unless they are also divisible by 400.

j) Write a guessing game where the user has to guess a secret number. After every guess the program tells the user whether their number was too large or too small. At the end the number of tries needed should be printed. It counts only as one try if they input the same number multiple times consecutively.