Exercise 1: Write a program that calculates the sum of all numbers from 1 to a certain number.

Example 1:
num = 5

Output:
The sum is: 15

Example 2:
num = 3

Output:
The sum is: 6

Exercise 2: Write a program that puts the multiplication table from 1-10 of a number into a list and prints it.

Example 1:
num = 5

Output:
The table is: [5, 10, 15, 20, 25, 30, 35, 40, 45, 50]

Example 2:
num = 3

Output:
The table is: [3, 6, 9, 12, 15, 18, 21, 24, 27, 30]

Exercise 3: Write a program that finds all of the numbers between 2950 and 5210 and are multiples of 13 and 9.

Exercise 4: Write a program that counts the even and odd digits in a number.

Example 1:
num = 56472749

Output:
This number has 4 odd digits and 4 even digits

Example 2:
num = 135

Output:
This number has 3 odd digits and 0 even digits

Exercise 5.1: To protect users from making stupid passwords, developers usually put a few requirements on a password that the user can create. Imagine you are working for a website and you need to ask the user to create a password for their account. The password has to be at least 4 characters long and not longer than 6 characters and can only contain letters.

Write a program that asks the user to create a password until they create a valid one. Then ask the user to put in their password until they get it correct. (Use the Input() function)

Example 1:
Output:
// Create a password: hello
// Enter your password: hello
// That is correct

Example 2:
Output:
// Create a password: d
// That does not fulfill the requirements, try again
// Create a password: friend
// Valid password
// Enter your password: hello
// That is incorrect, try again

// Enter your password: friend
// That is correct

Exercise 5.2: A substitution cipher is an encryption technique that replaces each letter in a word with another predetermined letter. In the Caesar cipher the letters are replaced by a letter that comes a certain amount(called the shift) of letters in the alphabet later. Let's say the shift is 2. We'll replace the letter b by the letter d. Because d is 2 letters later in the alphabet than b. Do this for every letter and you'll have an encrypted message.
Another example is that if the shift = 3. You can encrypt "hello" to "khoor"

Write a program that encrypts the user password with a given shift. (hint: you can use the ascii numbers of the characters(though it is not necessary). Use ord(character) to get the ascii number of that character and use chr(character) to turn an ascii number back into a character.)

Example 1:
password = "friend"
shift = 1

Output:
Encrypted password: gsjfoe

Example 2:
string = "sting"
shift = 4

Output:
Encrypted message: tujoh