**Functions and return values**

For your assignment you must write a compare function that returns 1 if a > b , 0 if a == b , and -1 if a < b. The user must be prompted for the values of a and b. The compare function must have arguments for a and b.

To demonstrate your compare function, you must call the compare function three times, once for each condition, from within your program and display (using print statement) the return code of the function.

Of course you will make static calls to your function to meet the test requirements. Something like:

print compare(5,2)

print compare(2,5)

print compare(3,3)

Then your program will switch to user input. Something like:

print compare(user\_input\_A, user\_input\_B)

Use the following table of values for a and b can be used when calling to test your compare function from within your program:

Test values

|  |  |
| --- | --- |
| a | b |
| 5 | 2 |
| 2 | 5 |
| 3 | 3 |

Solution nr 1

# Compare function that returns 1 if a > b , 0 if a == b , and -1 if a < b

def comparison (a, b):

if a > b:

return 1 #prints 1 if a is greater than b

elif a == b:

return 0 #prints 0 if a is equal b

elif a < b:

return -1 #prints -1 if a is smaller than b

# Comparasion of the values from the assignment

print('From the addignment a > b where a = 5 and b = 2:', comparison(5, 2))

print('From the assignment a < b where a = 2 and b = 5:', comparison(2, 5))

print('From the assignment a = b where a = 3 and b = 3:', comparison(3, 3))

# Switch to user output

a = input ("Enter value for a: ")

b = input ("Enter value for b: ")

print(comparison (int(a), int(b)))

Solution nr 2

#Function to compare two numbers

def compare(a,b):

if a < b:

return -1

elif a > b:

return 1

else:

return 0

#Check given values

#Compare a < b

retvalue = compare(2, 5)

print(retvalue)

#Compare a > b

retvalue = compare(5, 2)

print(retvalue)

#Check if a == b

retvalue = compare(3, 3)

print(retvalue)

# Switch to user output

a = input ("Enter value for a: ")

b = input ("Enter value for b: ")

retvalue = compare(int(a), int(b))

print(retvalue)