CS 131: Lab 2

For **each lab**, take a **screenshot** of **(1) your code** and **(2) the** **output** generated and paste them under each exercise

**Lab 2a:**

Given two integers, write a program that prints:

* The sum
* The difference
* The product
* The average
* The distance (absolute value of the difference)
* The maximum (the larger of the two)
* The minimum (the smaller of the two)

**Hint:** Python defines max and min functions that accept a sequence of values, each separated with a comma.  
Test your program with the following integers:

* 3, 8
* 2, 0
* 5, -1
* -4, 4

**Sample output 1:**

a =  3 , b =  8  
Sum: 11  
Difference: -5  
Product: 24  
Average: 5.5  
Distance: 5  
Minimum: 3  
Maximum: 8

**Sample output 2:**

a =  -2 , b =  0  
Sum: -2  
Difference: -2  
Product: 0  
Average: -1.0  
Distance: 2  
Minimum: -2  
Maximum: 0

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| *Copy and paste your source code here.*  a = -4  b = 4  *print*("Sum:", a + b)  *print*("Difference:", a - b)  *print*("Product:", a \* b)  *print*("Average:", (a + b) / 2)  *print*("Distance:", *abs*(a - b))  *print*("Minimum:", *min*(a, b))  *print*("Maximum:", *max*(a, b)) |

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| *Copy and paste a screenshot of your test results here.*  A screen shot of a computer  Description automatically generated |

**Lab 2b:**

Giving change implement a program that directs a cashier on how to give change. The program has two inputs: the amount due and the amount received from the customer. Display the dollars, quarters, dimes, nickels, and pennies that the customer should receive in return. In order to avoid roundoff errors, the user should supply both values in pennies, for example, 274 instead of 2.74.

**Sample output:**

Due: 411 Received: 693  
  
The change is:  
2 dollar(s)  
3 quarter(s)  
0 dime(s)  
1 nickel(s)  
2 pennie(s)

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| *Paste your source code here.*  due = 411  received = 693  tmp = received - due  dollar = int(tmp / 100)  tmp = tmp - dollar \* 100  quarter = int(tmp / 25)  tmp = tmp - quarter \* 25  dime = int(tmp / 10)  tmp = tmp - dime \* 10  nickel = int(tmp / 5)  tmp = tmp - nickel \* 5  pennie = tmp  *print*("Due:", due, "Received:", received)  *print*()  *print*("The change is:")  *print*(dollar, "dollar(s)")  *print*(quarter, "quarter(s)")  *print*(dime, "dime(s)")  *print*(nickel, "nickel(s)")  *print*(pennie, "pennie(s)") |

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| *Copy and paste a screenshot of your test results here.*  A screenshot of a computer  Description automatically generated |