ASSIGNMENT-3

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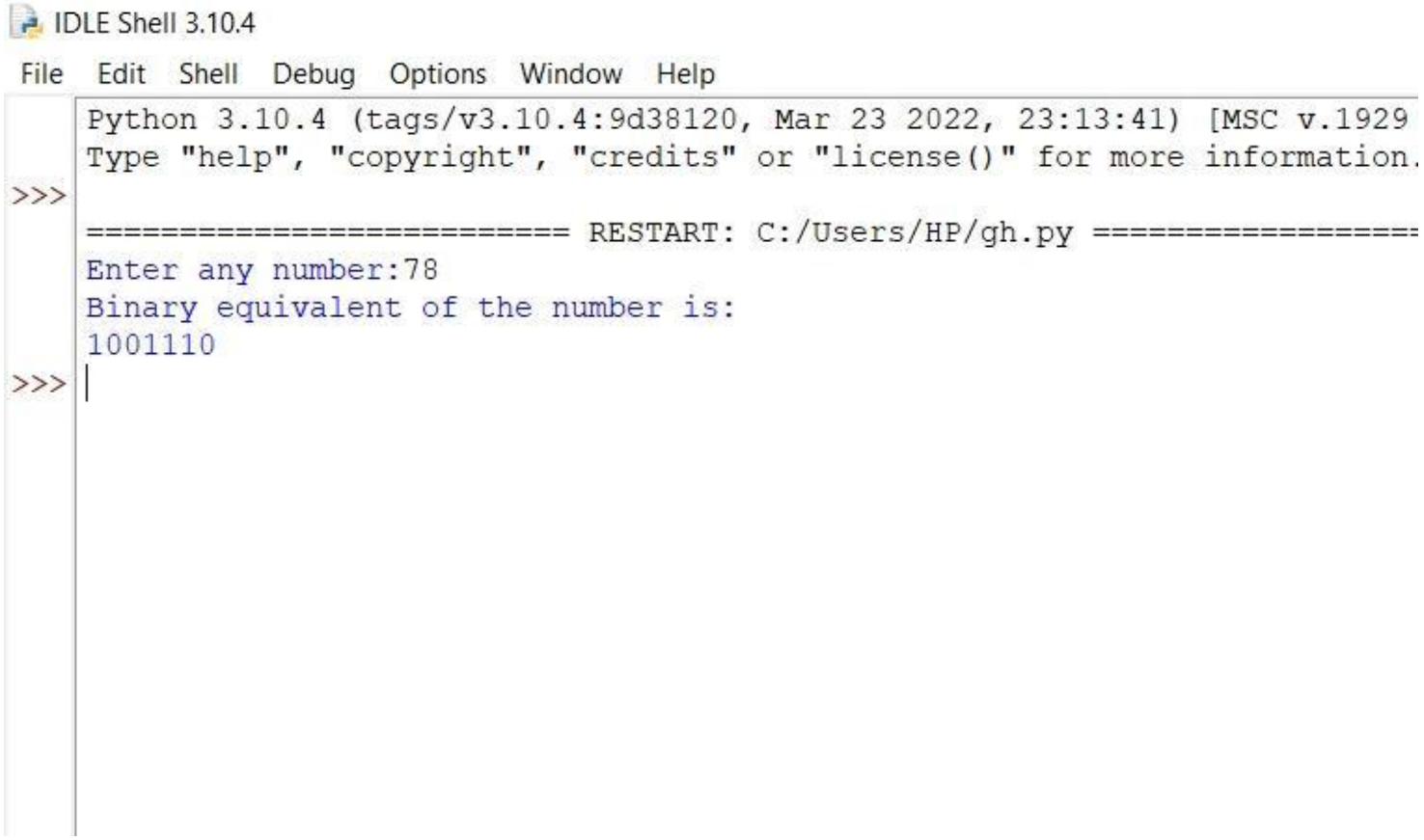
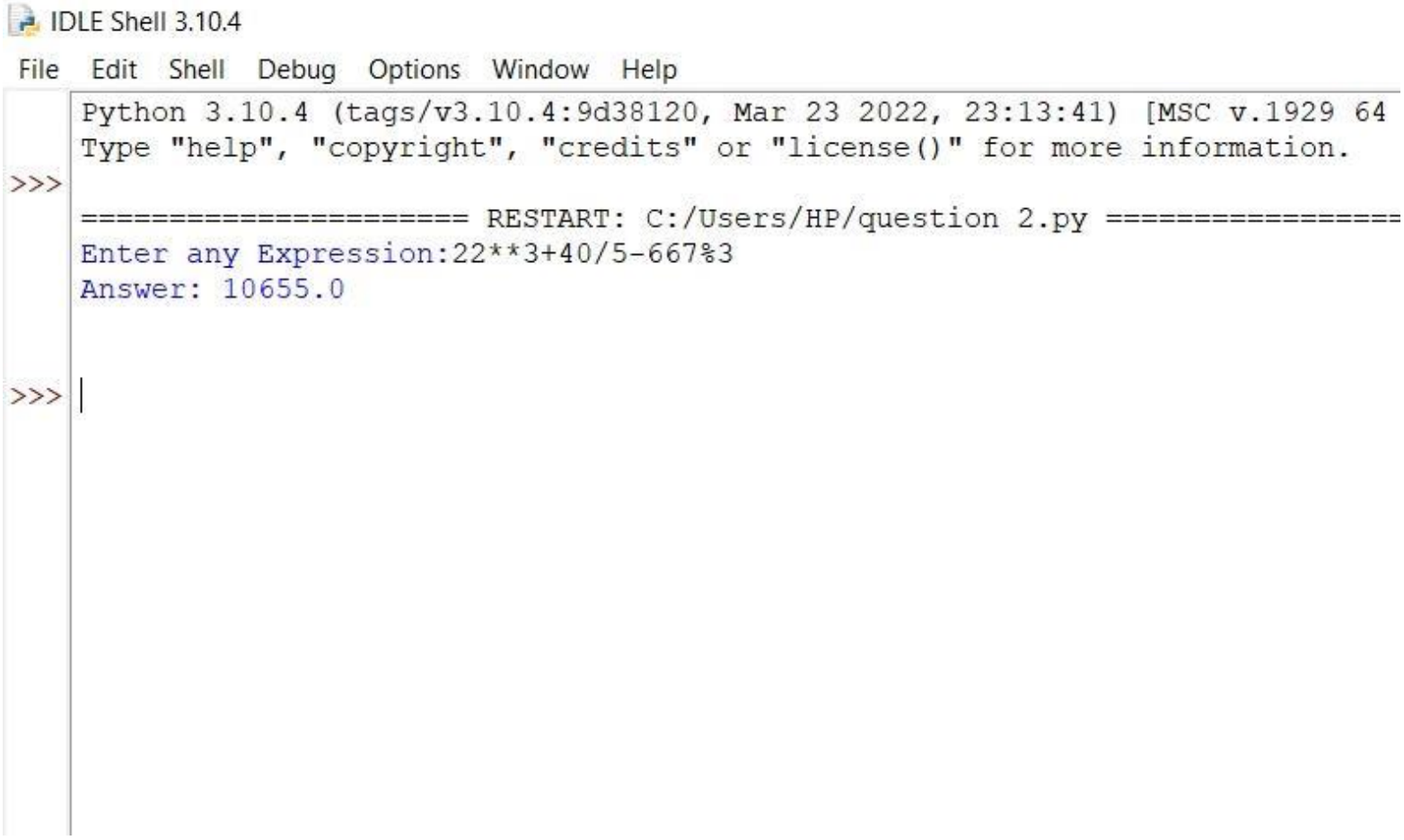
1. **Write a program to take a number as input and convert it into its binary equivalent.**

OUTPUT:



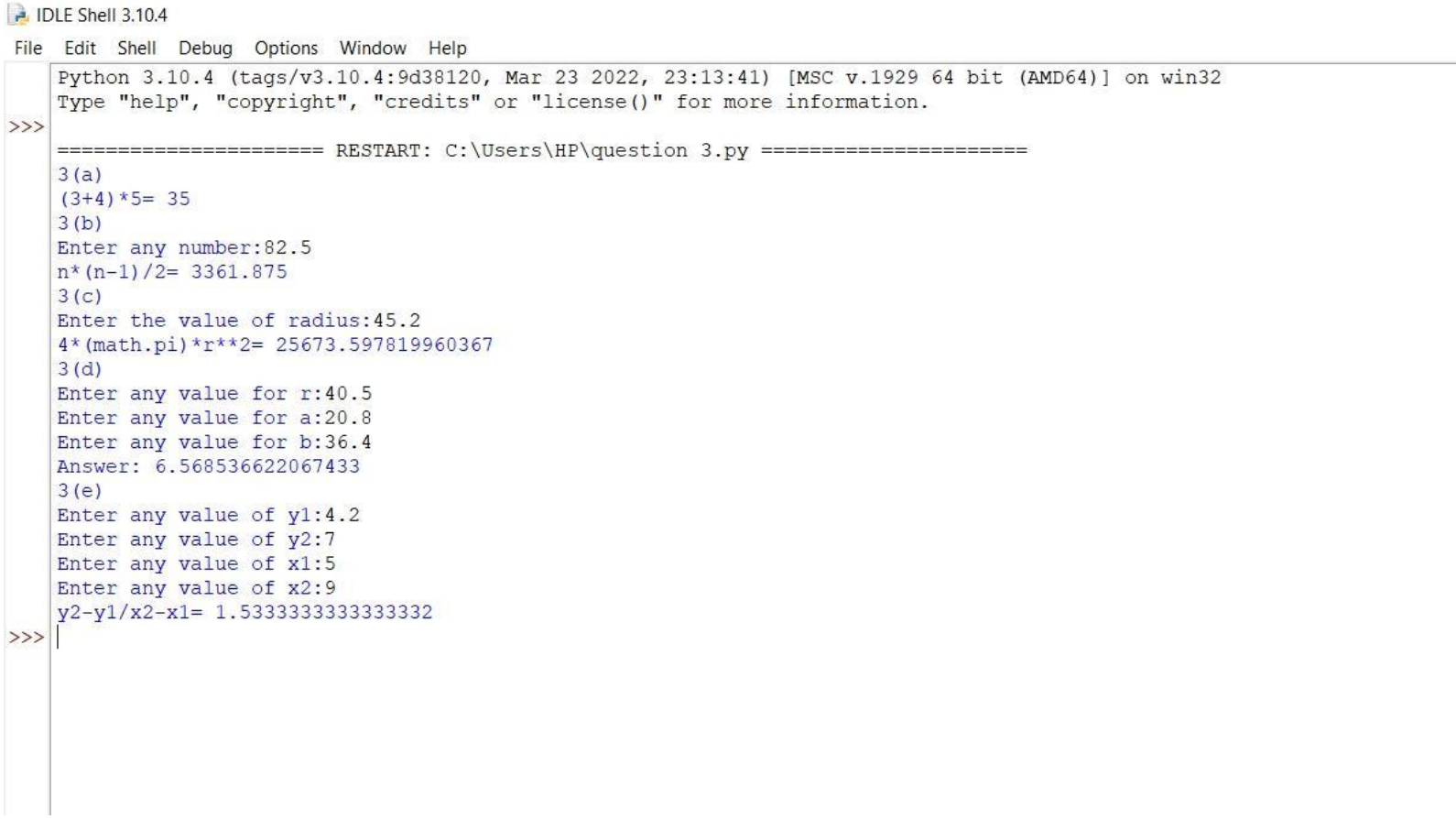
2. Write an interactive Python calculator program. The program should allow the user to type a mathematical expression, and then print the value of the expression.

OUTPUT:



Q3 Translate each of the following mathematical expressions into an equivalent python expression. You may assume that the math library has been imported (via import math)

OUTPUT:



4. Show the sequence of numbers that would be generated by each of the following range expressions.

a)range (5)

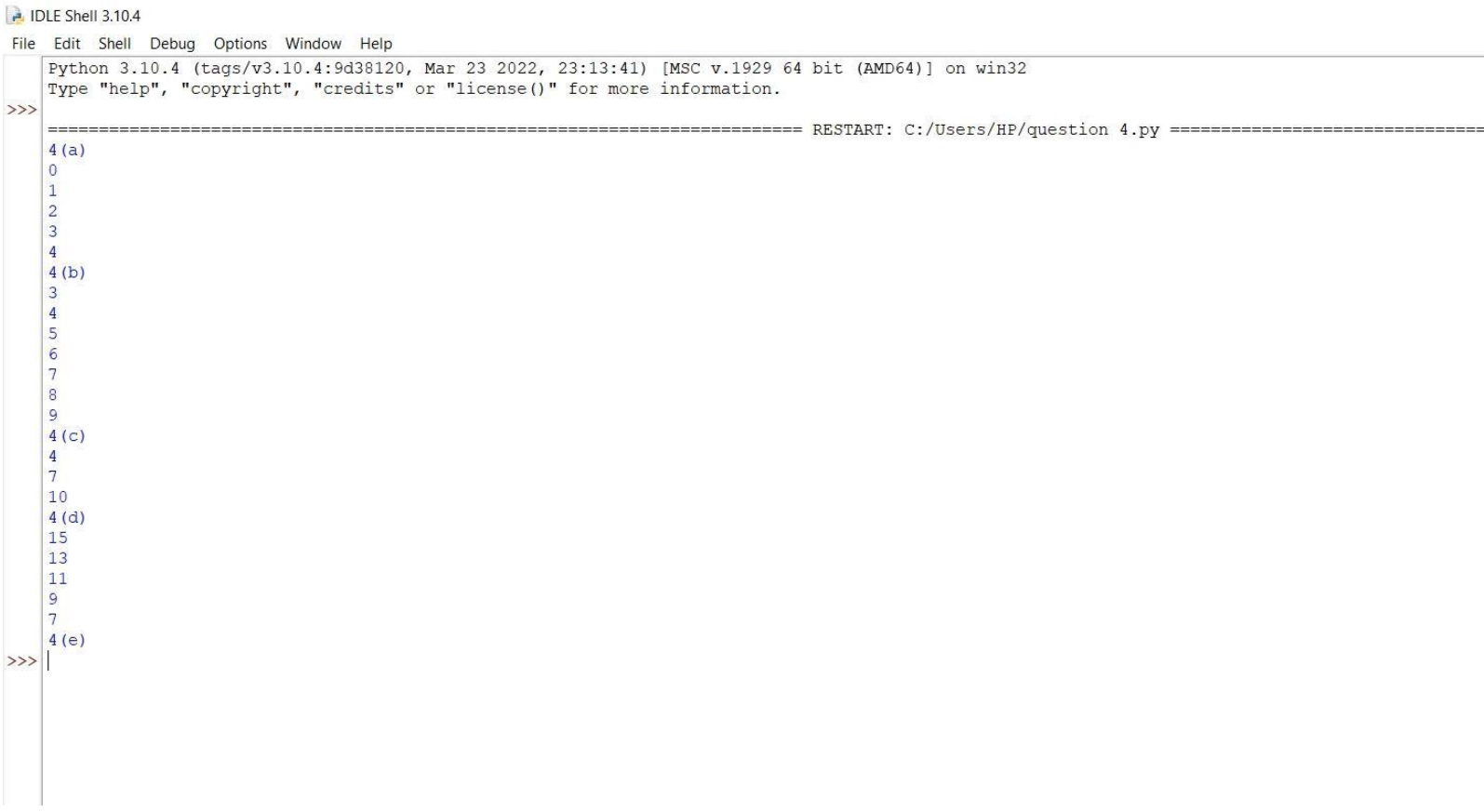
b)range (3, 10)

c)range (4, 13, 3)

d)range (15, 5, -2)

e)range (5, 3)

OUTPUT:



Write a program that computes the molecular weight of a carbohydrate (in grams per mole) based on the number of hydrogen, carbon, and oxygen atoms in the molecule. The program should prompt the user to enter the number of hydrogen atoms, the number of carbon atoms, and the number of oxygen atoms. The program then prints the total combined molecular weight of all the atoms based on these individual atom weights:
Atom Weight
(grams I mole)
H 1.00794
c 12.0107
0 15.9994
For example, the molecular weight of water (H20) is: 2(1.00794) + 15.9994 = 18.01528.

OUTPUT: