Homework Assignment: Exploring Python Data Types

Instructions:
For this assignment, you will explore various data types in Python. Write Python code to accomplish the tasks described below.
Remember to comment your code appropriately for clarity. Submit your Python script as the final assignment submission.

Task 1: Integers and Floats
1. Create two variables: `integer_var` with a value of your choice and `float_var` with a floating-point value of your choice.
2. Print the sum of `integer_var` and the integer part of `float_var`.

Task 2: Long and Complex Numbers
1. Create a variable `long_var` and assign a very large integer value to it (e.g., 10^10).
2. Create a variable `complex_var` and assign a complex number to it (e.g., 3 + 4j).
3. Print the product of `long_var` and the real part of `complex_var`.

Task 3: Strings
1. Create a variable `string_var` and assign a string containing your full name to it.
2. Use string slicing to print only the first name from `string_var`.
3. Concatenate the first name with the string ", welcome to the Python class!" and print the result.

Task 4: Lists
1. Create a list `num_list` containing five integer values.
2. Append a float value to `num_list`.
3. Print the length of `num_list`.

Task 5: Tuples
1. Create a tuple `fruit_tuple` containing the names of three of your favorite fruits.
2. Attempt to change the second element of the tuple to a different fruit and observe the error.
3. Print the third element of the tuple.

Task 6: Dictionaries
1. Create a dictionary `student_dict` with the following key-value pairs:
   - "name": Your name
   - "age": Your age
   - "grade": Your current academic grade
2. Add a new key-value pair to `student_dict`: "city" and your current city of residence.
3. Print the value associated with the "age" key.

Task 7: Booleans
1. Create a variable `bool_var1` and assign it a boolean value of your choice (True or False).
2. Create another variable `bool_var2` and assign it the opposite boolean value of `bool_var1`.
3. Print the result of the expression: `bool_var1 and (not bool_var2)`

Submission:
Submit a Python script file (.py) containing your code for all the tasks mentioned above. Make sure your code is well-commented and organized.