**Python Basics: Data Types and Data Structures**

**Basic Data Types:**

1. Write a Python program to check the data type of the given variables:
2. x = 20
3. y= 3.14
4. z = "World"
5. d = True/False
6. Convert a float to an integer and vice-versa.
7. Convert the string "12345" into an integer.
8. Write a program that checks if a variable is of boolean data type.
9. What will be the output of the following code?
10. x = 10
11. y = "10"
12. print(x + int(y))
13. print(str(x) + y)
14. Write a program that takes two numbers as input and returns their sum as a float.

**Non-Primitive Data Type/ Data Structures:**

**Lists:**

1. Create a list of your 5 favorite fruits.
2. Write a Python program that:
   * Adds a new element to the end of a list.
   * Inserts an element at a specific index.
   * Removes the last element.
3. Find the sum and the average of a list of numbers.
4. Write a program to reverse a list.
5. Write a program to sort a list of integers in ascending order.

**Tuples:**

1. Create a tuple with some elements.
2. Write a program to access the last element of a tuple.
3. Convert a tuple to a list and add a new element.

**Sets:**

1. Create two sets A and B and:
   * Find their union.
   * Find their intersection.
   * Find their difference.
2. Check if an element exists in a set.

**Dictionaries:**

1. Create a dictionary to store the names and ages of 5 people.
2. Write a program to add a new key-value pair to a dictionary.
3. Write a program to delete a key from a dictionary.
4. Iterate over a dictionary and print all keys and values.
5. Write a program to check if a given key exists in a dictionary.