1.Given a list [1, 2, 3] get [1, 2, 3, 4, 5, 6].

2.For the list [1, 2, 2, 3, 4, 2], find how many times 2 appears.

3.In the list [5, 10, 15, 20], find the index of 15.

4.For the string "Python programming", check if it starts with "Python".

5.Replace "hello" with "hi" in the string "hello world, hello everyone".

6.Split "This is a sentence" into a list of words.

7.Convert ["apple", "banana", "cherry"] into "apple-banana-cherry".

8.Reverse the list [1, 2, 3, 4, 5] to get [5, 4, 3, 2, 1]

9.For the tuple (8, 2, 7, 4, 3, 6, 5), find the second smallest element.

10.For the tuple ("hello", "world", "from", "tuple"), convert it to the string "hello world from tuple".

11. Given nums = [10, 20, 30, 40, 50, 60], what does print(nums[1:5:-1]) return?

12. What is the output of: type([1, 2, 3]) == type((1, 2, 3))?

13. Convert the string '100' into an integer.

14. What is the output of bool('')?

15. What is the result of 5 + 3 * 2?

16.Use the assignment operator to increase a variable by 5.

17. Predict the result of: 10 < 20 and 20 < 30.

18.Print the square of each number from 1 to 5 using a for loop.

19.Count the number of vowels in a string using a for loop.

20.Print only odd numbers from a list using a for loop.

21. Use a for loop to print this inverted right-angled triangle pattern:

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22. Write a while loop that prints numbers from 10 to 1 in reverse.

23.Write a while loop that prints the sum of digits of a number (e.g., 1234 ? 10).

24. Use a while loop to print Fibonacci numbers below 50.

25. d = {'a': 1, 'b': 2}

    d['a'] += 3

    print(d)

26. d = {

    (1, 2): "tuple",

    [3, 4]: "list",

    "key": "string"

}Will it run?Explain.

27.Get a list of all keys from the dictionary d = {'x': 10, 'y': 20, 'z': 30}.

28.Remove the key 'b' from the dictionary d = {'a': 1, 'b': 2, 'c': 3}.

29.Add a new key-value pair 'd': 4 to the dictionary d = {'a': 1, 'b': 2, 'c': 3}.

30.Create a dictionary from two lists: keys = ['name', 'age'] and values = ['Alice', 25].