1. Write a C++ program to remove the nth element from the end of a given list

   Sample Output: Original node: 1 2 3 4 5

   After removing 2nd element from end: 1 2 3 5

2. Write a C++ program to find the largest element of a given array of integers.

3. Let's say you are given a list saved in a:

   a = [1, 4, 9, 16, 25, 36, 49, 64, 81, 100]
   Write C++ code that takes this list and make new 2 lists of even number, odd number.
   Print both lists with the length of each one of them.

4. Write a C++ program to find all of the longest word in a given dictionary.

   Example-1: { "cat", "flag", "green", "country", "w3resource" }

   Result: "w3resource"

   Example-2: {"cat", "dog", "red", "is", "am" }

   Result: "cat", "dog", "red"

5. Write a C++ program to check if a given string has all unique characters.

Sample input: xyyz

Sample output: String has all unique characters: false

6. Concatenate two lists index-wise
Write a program to add two lists index-wise. Create a new list that contains the 0th index item from both the list, then the 1st index item, and so on till the last element. any leftover items will get added at the end of the new list.

Given:

```
list1 = ["M", "na", "i", "Ke"]
list2 = ["y", "me", "s", "lly"]
```

Expected output:

```
['My', 'name', 'is', 'Kelly']
```

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7. Turn every item of a list into its square
Given a list of numbers. Write a program to turn every item of a list into its square.

Given:

```
numbers = [1, 2, 3, 4, 5, 6, 7]
```

Expected output:

```
[1, 4, 9, 16, 25, 36, 49]
```

8. Concatenate two lists in the following order
```
list1 = ["Hello ", "take "]
list2 = ["Dear", "Sir"]
```

Expected output:

```
['Hello Dear', 'Hello Sir', 'take Dear', 'take Sir']
```

----

9. Remove empty strings from the list of strings
```
list1 = ["Mike", "", "Emma", "Kelly", "", "Brad"]
```

Expected output:

```
["Mike", "Emma", "Kelly", "Brad"]
```

----

10.   Replace list's item with new value if found
You have given a Dart list. Write a program to find value 20 in the list, and if it is present, replace it with 200. Only update the first occurrence of an item.

Given:

```
list1 = [5, 10, 15, 20, 25, 50, 20]
```

Expected output:

```
[5, 10, 15, 200, 25, 50, 20]
```

11.   Display Sum and Average of Array Elements Using for Loop

12.   How do you find all pairs of an integer array whose sum is equal to a given number?