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Problem # 35/2 Solution Using C++

```
#include <iostream>
using namespace std;

int ReadNumber()
{
    int Number;
    cout << "\nPlease enter a number to search for?\n";
    cin >> Number;

    return Number;
}

int RandomNumber(int From, int To)
{
    //Function to generate a random number
    int randNum = rand() % (To - From + 1) + From;
    return randNum;
}

void FillArrayWithRandomNumbers(int arr[100], int& arrLength)
{
    cout << "\nEnter number of elements:\n";
    cin >> arrLength;

    for (int i = 0; i < arrLength; i++)
        arr[i] = RandomNumber(1, 100);
}

void PrintArray(int arr[100], int arrLength)
{
    for (int i = 0; i < arrLength; i++)
        cout << arr[i] << " ";

    cout << "\n";
}
```



Problem # 35/2 Solution Using C++

```
short FindNumberPositionInArray(int Number, int arr[100], int
arrLength)
{
    for (int i = 0; i < arrLength; i++)
    {
        if (arr[i] == Number)
            return i; // return the index
    }

    //if you reached here, this means the number is not found
    return -1;
}

bool IsNumberInArray(int Number, int arr[100], int arrLength)
{
    return FindNumberPositionInArray(Number, arr, arrLength) != -1;
}

int main()
{
    //Seeds the random number generator in C++, called only once
    srand((unsigned)time(NULL));

    int arr[100], arrLength;
    FillArrayWithRandomNumbers(arr, arrLength);

    cout << "\nArray 1 elements:\n";
    PrintArray(arr, arrLength);

    int Number = ReadNumber();
    cout << "\nNumber you are looking for is: " << Number << endl;

    if (!IsNumberInArray(Number, arr, arrLength))
        cout << "No, The number is not found :-(\n";
    else
    {
        cout << "Yes it is found :-)\n";
    }

    return 0;
}
```