Logical Explanation of the Code

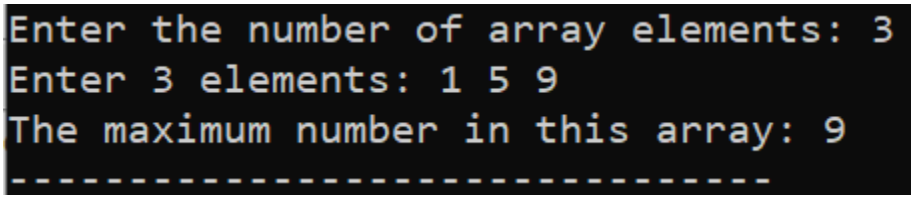
Introduction:

This C++ program finds the maximum number in an array using a function.

Explanation:

1. **Finding Maximum:**
    - findMaxNum() iterates through the array to find the largest value.
    - MaxVal stores the highest number found.
2. **User Input & Dynamic Array:**
    - The user inputs the number of elements.
    - A dynamic array is created and filled with values.
3. **Function Call & Memory Deallocation:**
    - findMaxNum() is called to find and display the maximum value.
    - delete[] arr; frees allocated memory.

Output Example:



Code:

```
#include <iostream>

using namespace std;

void findMaxNum(int arr[], int n)

{

   int MaxVal = arr[0];

   for(int i = 1; i < n; i++ )

   {

      if(arr[i] > MaxVal)

      {
```

```
            MaxVal = arr[i];
        }
    }
    //Display Statement
    cout << "The maximum number in this array: " << MaxVal;
}
int main()
{
    int num;

    cout << "Enter the number of array elements: ";
    cin  >> num;

    int* arr = new int[num];

    cout << "Enter " << num << " elements: ";
    for(int i = 0; i < num; i++)
    {
        cin >> arr[i];
    }

    findMaxNum(arr, num);

    delete[]arr;

    return 0;
}
```