

Design a **C++ class** that manages a **dynamic integer array** with the following requirements:

1. The class should allocate memory dynamically for an integer array.
2. Implement a **copy constructor** to ensure a **deep copy** of the dynamically allocated array.
3. Provide a **method to modify the array size** and update its values.
4. Implement a **print method** to display array elements.
5. Demonstrate the class functionality in the `main()` function by:
  - Creating an object with an initial size of `5` and input values.
  - Creating another object using the **copy constructor**.
  - Printing both objects.
  - Modifying the original object's size and values.
  - Printing both objects again to verify the deep copy mechanism.

**Constraints:**

- Ensure there is no memory leak when modifying the array size.
- Copy constructor should allocate a new array and copy the values from the existing object.

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```
#include <iostream>
#include<cstring>
using namespace std;
class strOperations
{
    int* array;
    int size;
public:
    strOperations(int s) : size(s)
    {
        array=new int[size];
        cout<<"Enter the "<<size<<"values : "<<endl;
        for(int i=0;i<size;i++)
        {
            cin>>array[i];
        }
    }
    strOperations(strOperations& obj): size(obj.size)
    {
        array=new int[size];
        for(int i=0;i<size;i++)
        {
```

```

        array[i]=obj.array[i];
    }

}

void set()
{
    cout<<"Enter the new size"<<endl;
    cin>>size;
    array=new int[size];
    cout<<"Enter the "<<size<<" elements : "<<endl;
    for(int i=0;i<size;i++)
        cin>>array[i];
}

void print()
{
    cout<<"The elements are : "<<endl;
    for(int i=0;i<size;i++)
    {
        cout<<array[i]<<endl;
    }
}

~strOperations()
{
    if(array!=nullptr)
    {
        delete[] array;
        array=nullptr;
    }
    cout<<"Memory de allocated"<<endl;
}

};

int main()
{
    strOperations st(5);
    strOperations st1(st);
    st.print();
    st1.print();
    st.set();
    st.print();
    st1.print();
    return 0;
}

```