

## P22 2.3-7

```
#include <iostream>
#include <string>
using namespace std;
template < class T >
int BinarySearch(T array[], int first, int last, T value){
    if (first <= last){
        int mid = (first + last) / 2;
        if (array[mid] > value){
            return BinarySearch(array, first, mid - 1, value);
        }
        else if (array[mid] < value){
            return BinarySearch(array, mid + 1, last, value);
        }
        else{
            return mid;
        }
    }
    else{
        return -1;
    }
}

int main(){
    int n;
    cout << "输入数组长度: " << endl;
    cin >> n;
    int *arrays = new int[n];
    cout << "输入数组的各个数字: " << endl;
    int j = 0;
    while (j < n){
        cin >> arrays[j];
        j++;
    }
    cout << "输入要查找的数字: " << endl;
    int number;
    cin >> number;
    for (int i = 0; i < n; i++){
        int v = BinarySearch(arrays, 0, n - 1, number-arrays[i]);
```

```
if (v != -1){  
    cout << arrays[i]<<"+"<<arrays[v]<<"="<<number<< endl;  
}  
}  
delete arrays;  
return 0;  
}
```