

Find the third largest element in an array

example

8 324 43534 412 34 43534 6 412

answer 324

```
void searchArray(int arr[], int length) {
    int maxNum = arr[0];
    int secondMaxNum = arr[1];
    int thirdMaxNum = arr[2];
    for (int i = 0; i < length; i++) {
        if (arr[i] > maxNum) { //
            thirdMaxNum = secondMaxNum;
            secondMaxNum = maxNum;
            maxNum = arr[i];
        }
        else if (arr[i] > secondMaxNum && arr[i] < maxNum) {
            thirdMaxNum = secondMaxNum;
            secondMaxNum = arr[i];
        }
        else if (arr[i] > thirdMaxNum && arr[i] < secondMaxNum) {
            thirdMaxNum = arr[i];
        }
    }
    std::cout << thirdMaxNum << " is the third largest number in the array." << std::endl;
}
```

