



链滴

# [每日 LeetCode] 628. Maximum Product of Three Numbers

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原文链接: <https://ld246.com/article/1554211078325>

来源网站: [链滴](#)

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Description:

Given an integer array, find three numbers whose product is maximum and output the maximum product.

**Example 1:**

Input: [1,2,3]

Output: 6

**Example 2:**

Input: [1,2,3,4]

Output: 24

**Note:**

1. The length of the given array will be in range [3,104] and all elements are in the range [-100, 1000].
2. Multiplication of any three numbers in the input won't exceed the range of 32-bit signed integer.

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思路：本题要求数组中三个元素乘积的最大值。最开始想到直接对数组排序，取最大三个元素相乘即，结果被无情打脸，没有考虑负数和0的情况。总结了一下，可能取得最大值要么是三个最大值相乘要么是一个最大值和两个最小值相乘，最后取两者的最大值即可。

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C++代码

```
class Solution {
public:
    int maximumProduct(vector<int>& nums) {
        int n = nums.size();
        sort(nums.begin(),nums.end());
        int max1 = nums[n-1], max2 = nums[n-2], max3 = nums[n-3];
        int min1 = nums[0], min2 = nums[1];
        return max(max1*max2*max3, max1*min1*min2);
    }
};
```

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运行时间：68ms

运行内存：10.8M