题目描述：

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:

3. The length of the given array will be in range [3,104] and all elements are in the range [-1000, 1000].

4. Multiplication of any three numbers in the input won't exceed the range of 32-bit signed integer.

自己的思路：

三层循环暴力求解，结果：超时

讨论区题解：

先排序，a等于最后三个元素相乘，b等于最后一个元素与头两个元素相乘，返回a与b中较大的。原因：按照正负来看数组的情况，只有一下几种：

当最后一个(最大元素)大于0时：

[-,-,........-,+,+]

[-,-,........,-,-,+]

[-,+,......,+,+,+]

当最后一个元素小于0时，只有一种情况：

[-,-,.........,-,-,-]

题解代码：

class Solution {
    public int maximumProduct(int[] nums) {
        Arrays.sort(nums);
        //One of the Three Numbers is the maximum value in the array.

        int a = nums[nums.length - 1] * nums[nums.length - 2] * nums[nums.length - 3];

```java
        int b = nums[0] * nums[1] * nums[nums.length - 1];
        return a > b ? a : b;
    }
}
```