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import java.io.*;
import java.util.*;

class Day53 {

    // Function to find the maximum product subarray
    static int maxProductSubarray(int[] nums) {
        if (nums.length == 0) {
            return 0;
        }

        int maxProduct = nums[0];
        int minProduct = nums[0];
        int result = nums[0];

        for (int i = 1; i < nums.length; i++) {
            // When multiplied by -ve number, max product becomes min and min becomes max
            if (nums[i] < 0) {
                int temp = maxProduct;
                maxProduct = minProduct;
                minProduct = temp;
            }

            maxProduct = Math.max(nums[i], maxProduct * nums[i]);
            minProduct = Math.min(nums[i], minProduct * nums[i]);

            // Updating the result
            result = Math.max(result, maxProduct);
        }

        return result;
```

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    }

    // Driver code
    public static void main(String[] args) throws NumberFormatException, IOException {
        BufferedReader br = new BufferedReader(new InputStreamReader(System.in));

        // Inputting the size of the array
        int N = Integer.parseInt(br.readLine());

        // Inputting the array
        int[] nums = new int[N];
        String[] input = br.readLine().trim().split(" ");
        for (int i = 0; i < N; i++) {
            nums[i] = Integer.parseInt(input[i]);
        }

        // Finding the maximum product subarray
        int maxProduct = maxProductSubarray(nums);
        System.out.println("Maximum product subarray is: " + maxProduct);
    }
}
```