Given an integer array of size N. Write Program to find maximum product subarray in a given array.

Sample input 1:

4

2 -4 -1 -3

Sample output 1:

8 = {2, -4, -1}

Sample input 2:

5

1 5 -7 5 3

Sample output 2:

15 = {5, 3}

Solution:

C

```c
#include <stdio.h>

int MaxSubArrProd(int  *arr, int n)

{

  int ans = arr[0];

  for (int i = 0; i < n; i++)

  {

    int prod = arr[i];

    for (int j = i + 1; j < n; j++)

    {

      ans = ans > prod ? ans : prod;
```

```c
        prod =prod * arr[j];

      }

     ans = ans > prod ? ans : prod;

  }

  return ans;

}


int main()

{

    int n;        scanf("%d",&n);

    int arr[n];

    for(int i = 0 ; i<n ; i++)

    {

        scanf("%d",&arr[i]);

    }

    printf("%d",MaxSubArrProd(arr,n));

    return 0;

}
```

C++

```cpp
#include <bits/stdc++.h>

using namespace std;


int MaxSubArrProd(int  arr[], int n)

{
```

```cpp
    int ans = arr[0];

    for (int i = 0; i < n; i++)

    {

        int prod = arr[i];

        for (int j = i + 1; j < n; j++)

        {

            ans = max(ans,prod);

            prod =prod * arr[j];

        }

        ans = max(ans,prod);

    }

    return ans;

}


int main()

{

    int n;        cin>>n;

    int arr[n];

    for(int i = 0 ; i<n ; i++)

    {

        cin>>arr[i];

    }

    cout<<MaxSubArrProd(arr,n);

    return 0;

}
```

JAVA

```java
import java.util.*;

class Main
{
   static int MaxSubArrProd(int  arr[], int n)
   {
      int ans = arr[0];
      for (int i = 0; i < n; i++)
      {
         int prod = arr[i];
         for (int j = i + 1; j < n; j++)
         {
            ans = Math.max(ans,prod);
            prod =prod * arr[j];
         }
         ans = Math.max(ans,prod);
      }
      return ans;
   }
   public static void main(String[] args) throws java.lang.Exception
   {
      Scanner sc = new Scanner(System.in);
      int n = sc.nextInt();
      int arr[] = new int[n];
```

```
        for(int i = 0 ; i<n ; i++)

        {

                arr[i] = sc.nextInt();

        }

    System.out.print(MaxSubArrProd(arr,n));

    }

}
```

PYTHON

```python
def MaxSubArrProd(arr,n):

    ans = arr[0]

    for i in range(0,n):

        prod = arr[i]

        for j in range(i+1,n):

            ans = max(ans,prod)

            prod =prod * arr[j]

        ans = max(ans,prod)

    return ans;

n = int(input())

arr = list(map(int,input().split(' ')))

print(MaxSubArrProd(arr,n))
```