#include <bits/stdc++.h>

using namespace std;

long long maxSubarraySum(int arr[], int n) {

long long maxi = LONG\_MIN; // maximum sum

long long sum = 0;

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

sum += arr[i];

if (sum > maxi) {

maxi = sum;

}

// If sum < 0: discard the sum calculated

if (sum < 0) {

sum = 0;

}

}

// To consider the sum of the empty subarray

// uncomment the following check:

//if (maxi < 0) maxi = 0;

return maxi;

}

int main()

{

int arr[] = { -2, 1, -3, 4, -1, 2, 1, -5, 4};

int n = sizeof(arr) / sizeof(arr[0]);

long long maxSum = maxSubarraySum(arr, n);

cout << "The maximum subarray sum is: " << maxSum << endl;

return 0;

}