#include <iostream>

#include <omp.h>

#include <climits>

using namespace std;

void min\_reduction(int arr[], int n) {

int min\_value = INT\_MAX;

#pragma omp parallel for reduction(min: min\_value)

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

if (arr[i] < min\_value) {

min\_value = arr[i];

}

}

cout << "Minimum value: " << min\_value << endl;

}

void max\_reduction(int arr[], int n) {

int max\_value = INT\_MIN;

#pragma omp parallel for reduction(max: max\_value)

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

if (arr[i] > max\_value) {

max\_value = arr[i];

}

}

cout << "Maximum value: " << max\_value << endl;

}

void sum\_reduction(int arr[], int n) {

int sum = 0;

#pragma omp parallel for reduction(+: sum)

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

sum += arr[i];

}

cout << "Sum: " << sum << endl;

}

void average\_reduction(int arr[], int n) {

int sum = 0;

#pragma omp parallel for reduction(+: sum)

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

sum += arr[i];

}

cout << "Average: " << (double)sum / n << endl;

}

int main() {

int \*arr, n;

cout << "\nEnter total number of elements => ";

cin >> n;

arr = new int[n];

cout << "\nEnter elements => ";

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

cin >> arr[i];

}

min\_reduction(arr, n);

max\_reduction(arr, n);

sum\_reduction(arr, n);

average\_reduction(arr, n);

delete[] arr;

return 0;

}