

MIN,MAX,AVG,SUM

g++ -fopenmp -o output filename.cpp

./output

1

```
#include<iostream>
```

```
#include<omp.h>
```

```
using namespace std;
```

```
int minval(int arr[], int n){
```

```
    int minval = arr[0];
```

```
    #pragma omp parallel for reduction(min : minval)
```

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

```
            if(arr[i] < minval) minval = arr[i];
```

```
        }
```

```
    return minval;
```

```
}
```

```
int maxval(int arr[], int n){
```

```
    int maxval = arr[0];
```

```
#pragma omp parallel for reduction(max : maxval)
for(int i = 0; i < n; i++){
    if(arr[i] > maxval) maxval = arr[i];
}
return maxval;
}
```

```
int sum(int arr[], int n){
    int sum = 0;
    #pragma omp parallel for reduction(+ : sum)
    for(int i = 0; i < n; i++){
        sum += arr[i];
    }
    return sum;
}
```

```
int average(int arr[], int n){
    return (double)sum(arr, n) / n;
}
```

```
int main(){  
    int n = 5;  
    int arr[] = {1,2,3,4,5};  
    cout << "The minimum value is: " << minval(arr, n) <<  
    '\n';  
    cout << "The maximum value is: " << maxval(arr, n) <<  
    '\n';  
    cout << "The summation is: " << sum(arr, n) << '\n';  
    cout << "The average is: " << average(arr, n) << '\n';  
    return 0;  
}
```