```cpp
#include <iostream>
#include <vector>
#include <omp.h>
using namespace std;

int main() {
    int n;
    cout << "Enter number of elements: ";
    cin >> n;

    vector<double> arr(n);
    cout << "Enter elements: " << endl;
    for (double &x : arr) {
        cin >> x;
    }

    double min_val = arr[0];
    double max_val = arr[0];
    double sum = 0.0;

    // Parallel reduction for min, max, and sum
    #pragma omp parallel for reduction(min:min_val) reduction(max:max_val) reduction(+:sum)
    for (int i = 0; i < n; i++) {
        min_val = min(min_val, arr[i]); // OpenMP handles this reduction
        max_val = max(max_val, arr[i]); // OpenMP handles this reduction
        sum += arr[i];
    }

    double avg = sum / n;

    // Output the results
```

```cpp
    cout << "Minimum: " << min_val << endl;

    cout << "Maximum: " << max_val << endl;

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

    cout << "Average: " << avg << endl;


    return 0;
}
```

OP:

Enter number of elements: 5

Enter elements:

123

45

6

678

98

Minimum: 4

Maximum: 678

Sum: 798

Average: 159.6