#include <iostream>

using namespace std;

int main(){

int n,avg\_wt=0,avg\_tat=0;

cout << "Enter the number of processes: ";

cin >> n;

int bt[n], wt[n], tat[n];

cout << "Enter the burst time of each process: ";

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

cin >> bt[i];

}

int temp;

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

for(int j=0; j<n-i-1; j++){

if(bt[j] > bt[j+1]){

temp = bt[j];

bt[j] = bt[j+1];

bt[j+1] = temp;

}

}

}

wt[0] = 0; //waiting time for the first process is 0

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

wt[i] = wt[i-1] + bt[i-1];

}

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

tat[i] = wt[i] + bt[i];

}

cout << "Process\tBurst Time\tWaiting Time\tTurnaround Time\n";

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

cout << i+1 << "\t" << bt[i] << "\t\t" << wt[i] << "\t\t" << tat[i] << "\n";

}

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

avg\_wt += wt[i];

avg\_tat += tat[i];

}

cout << "Average Waiting Time: " << (float)avg\_wt/n << "\n";

cout << "Average Turnaround Time: " << (float)avg\_tat/n << "\n";

}