import java.io.\*;

class round

{

public static void main(String args[])throws IOException

{

DataInputStream in=new DataInputStream(System.in);

int i,j,k,q,sum=0;

System.out.println("Enter number of process:");

int n=Integer.parseInt(in.readLine());

int bt[]=new int[n];

int wt[]=new int[n];

int tat[]=new int[n];

int a[]=new int[n];

System.out.println("Enter brust Time:");

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

{

System.out.println("Enter brust Time for:"+(i+1));

bt[i]=Integer.parseInt(in.readLine());

}

System.out.println("Enter Time quantum:");

q=Integer.parseInt(in.readLine());

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

a[i]=bt[i];

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

wt[i]=0;

do

{

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

{

if(bt[i]>q)

{

bt[i]-=q;

for(j=0;j<n;j++)

{

if((j!=i)&&(bt[j]!=0))

wt[j]+=q;

}

}

else

{

for(j=0;j<n;j++)

{

if((j!=i)&&(bt[j]!=0))

wt[j]+=bt[i];

}

bt[i]=0;

}

}

sum=0;

for(k=0;k<n;k++)

sum=sum+bt[k];

}

while(sum!=0);

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

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

System.out.println("process\t\tBT\tWT\tTAT&quot");

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

{

System.out.println("process"+(i+1)+"\t"+a[i]+"\t"+wt[i]+"\t"+tat[i]);

}

float avg\_wt=0;

float avg\_tat=0;

for(j=0;j<n;j++)

{

avg\_wt+=wt[j];

}

for(j=0;j<n;j++)

{

avg\_tat+=tat[j];

}

System.out.println("average waiting time"+(avg\_wt/n)+"\nAverage turn around time"+(avg\_tat/n));

}

}