#include<stdio.h>  
int main()  
{  
 int loads,i,j,input;  
 printf("Enter number of loads:");  
 scanf("%d",&loads);  
 double current[loads],current\_between\_loads[loads];  
 for(i=0;i<loads;i++)  
 {  
 scanf("%lf",&current[i]);  
 }  
 for(i=loads-1;i>=0;i--)  
 {  
 j=loads-1;  
 while(j>=i)  
 {  
 current\_between\_loads[i]=current\_between\_loads[i]+current[j];  
 j--;  
 }  
 }  
 double voltage\_drop,resistance,power\_loss,total\_current=0,current\_square=0;  
 for(i=0;i<loads;i++)  
 {  
 total\_current=total\_current+current\_between\_loads[i];  
 }  
 printf("\nChoose any one of the known value");  
 printf("\n1.Maximum Voltage Drop\n2.Value of resistance");  
 printf("\nYour Selection:");  
 scanf("%d",&input);  
 switch(input)  
 {  
 case 1:  
 {  
 printf("\nEnter the maximum volatage drop:");  
 scanf("%lf",&voltage\_drop);  
 resistance=voltage\_drop/total\_current;  
 break;  
 }  
 case 2:  
 {  
 printf("\nEnter the value of resistance:");  
 scanf("%lf",&resistance);  
 voltage\_drop=total\_current\*resistance;  
 break;  
 }  
 default:  
 printf("\nEnter valid number");  
 break;  
 }  
 for(i=0;i<loads;i++)  
 {  
 current\_square=current\_square+(current\_between\_loads[i]\*current\_between\_loads[i]);  
 }  
 power\_loss=resistance\*current\_square;  
 printf("\n------RESULT-----");  
 printf("\nResistance at each section is %.3le ohm",resistance);  
 printf("\nMaximum voltage drop is %.3lf volts",voltage\_drop);  
 printf("\nPower loss is %.3lf watts",power\_loss);  
 return 0;  
}