[A - Small, Large, or Equal](https://vjudge.net/problem/Aizu-ITP1_2_A)

#include <iostream>

using namespace std;

int main()

{

int a,b;

cin>>a>>b;

if (a<b)

cout<<"a < b"<<endl;

else if (a>b)

cout<<"a > b"<<endl;

else

cout<<"a == b"<<endl;

return 0;

}

[B - Compute area of rectangle](https://vjudge.net/problem/HackerRank-si-basic-compute-area-of-rectangle)

#include <iostream>

using namespace std;

int main()

{

long int len,bre;

cin>>len>>bre;

cout<<len\*bre;

return 0;

}

[C - Triangle validator](https://vjudge.net/problem/HackerRank-si-basic-triangle-validator)

#include <iostream>

using namespace std;

int main()

{

long int s1,s2,s3;

cin>>s1>>s2>>s3;

if((s1+s2)>s3 && (s2+s3)>s1 && (s3+s1)>s2)

cout<<"Yes";

else

cout<<"No";

return 0;

}

[D - Divide the apples - 2](https://vjudge.net/problem/EOlymp-4717)

#include <iostream>

using namespace std;

int main()

{

int n,k;

cin>>n;

cin>>k;

if(n<=1500 && k<=1500)

cout<<k%n<<endl;

return 0;

}

[E - Watermelon](https://vjudge.net/problem/CodeForces-4A)

#include <iostream>

using namespace std;

int main()

{

int w;

cin>>w;

if(w>2 && w%2==0)

cout<<"YES"<<endl;

else

cout<<"NO"<<endl;

return 0;

}

[F - Fever](https://vjudge.net/problem/CodeChef-FEVER)

#include <iostream>

using namespace std;

int main()

{

int t;

cin>>t;

int x[t];

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

cin>>x[i];

}

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

if(x[i]>98)

cout<<"YES"<<endl;

else

cout<<"NO"<<endl;

}

return 0;

}

[G - Lunchtime](https://vjudge.net/problem/CodeChef-LTIME)

#include <iostream>

using namespace std;

int main()

{

int t;

cin>>t;

int x[t];

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

cin>>x[i];

}

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

if(x[i]>=1 && x[i]<=4)

cout<<"YES"<<endl;

else

cout<<"NO"<<endl;

}

return 0;

}

[H - Is it hot or cold](https://vjudge.net/problem/CodeChef-HOTCOLD)

#include <iostream>

using namespace std;

int main()

{

int t;

cin>>t;

int x[t];

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

cin>>x[i];

}

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

if(x[i]>20)

cout<<"HOT"<<endl;

else

cout<<"COLD"<<endl;

}

return 0;

}

[I - Discount](https://vjudge.net/problem/CodeChef-DISCNT)

#include <iostream>

using namespace std;

int main()

{

int t;

cin>>t;

int x[t];

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

cin>>x[i];

}

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

cout<<100-x[i]<<endl;

}

return 0;

}

[J - TV Discount](https://vjudge.net/problem/CodeChef-TVDISC)

#include <iostream>

using namespace std;

int main()

{

int t;

cin>>t;

int x[t][4];

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

for(int j=0;j<4;j++){

cin>>x[i][j];

}

}

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

if(x[i][0]-x[i][2] < x[i][1]-x[i][3])

cout<<"First"<<endl;

else if(x[i][0]-x[i][2] > x[i][1]-x[i][3])

cout<<"Second"<<endl;

else

cout<<"Any"<<endl;

}

return 0;

}

[K - Battery Low](https://vjudge.net/problem/CodeChef-BATTERYLOW)

#include <iostream>

using namespace std;

int main()

{

int t;

cin>>t;

int x[t];

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

cin>>x[i];

}

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

if(x[i]<=15)

cout<<"Yes"<<endl;

else

cout<<"No"<<endl;

}

return 0;

}

[L - Chef and Candies](https://vjudge.net/problem/CodeChef-CHEFCAND)

#include <bits/stdc++.h>

using namespace std;

int main()

{

int t;

cin>>t;

int n\_ch[t],ca[t];

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

cin>>n\_ch[i]>>ca[i];

}

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

int rem=n\_ch[i]-ca[i];

if (rem>0)

cout<<ceil((float)rem/4)<<endl;

else

cout<<"0"<<endl;

}

return 0;

}

[M - Minimum Pizzas](https://vjudge.net/problem/CodeChef-MINPIZZA)

#include <bits/stdc++.h>

using namespace std;

int main()

{

int t;

cin>>t;

int friends[t],piece[t];

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

cin>>friends[i]>>piece[i];

}

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

cout<<ceil((float)(friends[i]\*piece[i])/4)<<endl;

}

return 0;

}

[N - Sugarcane Juice Business](https://vjudge.net/problem/CodeChef-SUGARCANE)

#include <bits/stdc++.h>

using namespace std;

int main()

{

int t;

cin>>t;

int n[t];

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

cin>>n[i];

}

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

int total,buy,rent;

total=n[i]\*50;

buy=total\*20/100;

rent=total\*30/100;

cout<<total-buy-buy-rent<<endl;

}

return 0;

}

[O - Perimeter of rectangle](https://vjudge.net/problem/EOlymp-7943)

 #include <bits/stdc++.h>

using namespace std;

int main()

{

int len,bre;

cin>>len>>bre;

cout<<2\*(len+bre)<<endl;

return 0;

}

[P - Next even integer](https://vjudge.net/problem/EOlymp-8888)

#include <bits/stdc++.h>

using namespace std;

int main()

{

int num;

cin>>num;

if(num%2==0)

cout<<num+2<<endl;

else

cout<<num+1<<endl;

return 0;

}

[Q - Decomposition of three digit number](https://vjudge.net/problem/EOlymp-935)

#include <bits/stdc++.h>

using namespace std;

int main()

{

int num;

cin>>num;

num=abs(num);

int count=0;

int temp=num;

while(temp>0){

count++;

temp=temp/10;

}

int x[count],j=0;

while(num>0){

x[j]=num%10;

num=num/10;

j++;

}

for(int i=count-1;i>=0;i--){

cout<<x[i]<<endl;

}

return 0;

}

[R - The first digit of the number](https://vjudge.net/problem/EOlymp-8243)

#include <bits/stdc++.h>

using namespace std;

int main()

{

long int num;

cin>>num;

num=abs(num);

int count=0;

long int temp=num;

while(temp>0){

count++;

temp=temp/10;

}

cout<<(int)(num/pow(10,count-1))<<endl;

return 0;

## [S - Two digits from four digits](https://vjudge.net/problem/EOlymp-949)

#include <bits/stdc++.h>

using namespace std;

int main()

{

int num;

cin>>num;

if(((num/100)%10)!=0)

cout<<(num/100)%10;

cout<<(num/10)%10;

return 0;

}

[T - Rectangle](https://vjudge.net/problem/Aizu-ITP1_1_C)

#include <bits/stdc++.h>

using namespace std;

int main()

{

int le,br;

cin>>le>>br;

cout<<le\*br<<" "<<2\*(le+br)<<endl;

return 0;

}

[U - Watch](https://vjudge.net/problem/Aizu-ITP1_1_D)

 #include <iostream>

using namespace std;

int main()

{

int hrs,mins,s;

long int sec;

cin>>sec;

mins=sec/60;

hrs=mins/60;

cout<<hrs<<":"<<mins%60<<":"<<sec%60<<endl;

return 0;

}

[V - Range](https://vjudge.net/problem/Aizu-ITP1_2_B)

 #include <iostream>

using namespace std;

int main()

{

int a,b,c;

cin>>a>>b>>c;

if(a<b && b<c)

cout<<"Yes"<<endl;

else

cout<<"No"<<endl;

return 0;

}

[W - Sorting Three Numbers](https://vjudge.net/problem/Aizu-ITP1_2_C)

#include <iostream>

using namespace std;

int main()

{

int a[3],temp;

cin>>a[0]>>a[1]>>a[2];

for(int i=0;i<3;i++){

for(int j=i+1;j<3;j++){

if(a[i]>a[j]){

temp=a[i];

a[i]=a[j];

a[j]=temp;

}

}

}

cout<<a[0]<<" "<<a[1]<<" "<<a[2]<<endl;

return 0;

}

[X - Circle in a Rectangle](https://vjudge.net/problem/Aizu-ITP1_2_D)

#include<iostream>

using namespace std;

int main(){

int w,h,x,y,r;

cin>>w>>h>>x>>y>>r;

if(x>=r && x<=w-r && y>=r && y<=h-r)

cout<<"Yes"<<endl;

else

cout<<"No"<<endl;

return 0;

}

[Y - Print Test Cases](https://vjudge.net/problem/Aizu-ITP1_3_B)

#include <iostream>

using namespace std;

int main()

{

int num,i=1;

cin>>num;

do{

cout<<"Case "<<i<<": "<<num<<endl;

i++;

cin>>num;

}while(num!=0);

return 0;

}

[Z - Swapping Two Numbers](https://vjudge.net/problem/Aizu-ITP1_3_C)

#include <iostream>

using namespace std;

int main()

{

int a,b;

while(true){

cin>>a>>b;

if(a==0 && b==0)

break;

if(a>b)

cout<<b<<" "<<a<<endl;

else

cout<<a<<" "<<b<<endl;

}

return 0;

}

## [AA - How Many Divisors?](https://vjudge.net/problem/Aizu-ITP1_3_D)

#include <iostream>

using namespace std;

int main()

{

int a,b,c,i,count=0;

cin>>a>>b>>c;

for(i=a;i<=b;i++){

if((c%i)==0)

count++;

}

cout<<count<<endl;

return 0;

}

[AB - Volume Control](https://vjudge.net/problem/CodeChef-VOLCONTROL)

#include <bits/stdc++.h>

using namespace std;

int main()

{

int t,a,b;

cin>>t;

while(t--){

cin>>a>>b;

cout<<abs(a-b)<<endl;

}

return 0;

}

[AC - Ezio and Guards](https://vjudge.net/problem/CodeChef-MANIPULATE)

#include <bits/stdc++.h>

using namespace std;

int main()

{

int t,x,y;

cin>>t;

while(t--){

cin>>x>>y;

if(y<=x)

cout<<"YES"<<endl;

else

cout<<"NO"<<endl;

}

return 0;

}

[AD - Credit score](https://vjudge.net/problem/CodeChef-CREDSCORE)

#include <bits/stdc++.h>

using namespace std;

int main()

{

int score;

cin>>score;

if(score>=750)

cout<<"YES"<<endl;

else

cout<<"NO"<<endl;

return 0;

}

[AE - Course Registration](https://vjudge.net/problem/CodeChef-COURSEREG)

#include <bits/stdc++.h>

using namespace std;

int main()

{

int t,n,cap,k;

cin>>t;

while(t--){

cin>>n>>cap>>k;

if((cap-k)>=n)

cout<<"Yes"<<endl;

else

cout<<"No"<<endl;

}

}

[AF - Increase IQ](https://vjudge.net/problem/CodeChef-INCRIQ)

#include <bits/stdc++.h>

using namespace std;

int main()

{

int iq;

cin>>iq;

if((iq+7)>170)

cout<<"Yes"<<endl;

else

cout<<"No"<<endl;

}

[AG - Miami GP](https://vjudge.net/problem/CodeChef-F1RULE)

#include <bits/stdc++.h>

using namespace std;

int main()

{

int t;

float x,y;

cin>>t;

while(t--){

cin>>x>>y;

x=x+(x\*7/100);

if(y<=x)

cout<<"YES"<<endl;

else

cout<<"NO"<<endl;

}

}

[AH - Is the Score Consistent](https://vjudge.net/problem/CodeChef-TRUESCORE)

#include <bits/stdc++.h>

using namespace std;

int main()

{

int t,a,b,c,d;

cin>>t;

while(t--){

cin>>a>>b;

cin>>c>>d;

if(a<=c && b<=d)

cout<<"POSSIBLE"<<endl;

else

cout<<"IMPOSSIBLE"<<endl;

}

}

[AI - The Three Topics](https://vjudge.net/problem/CodeChef-THREETOPICS)

#include <iostream>

using namespace std;

int main()

{

int a,b,c,x;

cin>>a>>b>>c>>x;

if(a==x || b==x || c==x)

cout<<"Yes"<<endl;

else

cout<<"No"<<endl;

return 0;

}

[AJ - Number of multiples](https://vjudge.net/problem/HackerRank-si-basic-number-of-multiples)

#include<iostream>

using namespace std;

int main(){

long int N;

int count=0;

cin>>N;

cout<<(N/3)+(N/5)-(N/15)<<endl;

return 0;

}

[AK - Tax in Chefland](https://vjudge.net/problem/CodeChef-TAXES)

#include <iostream>

using namespace std;

int main()

{

int t,a;

cin>>t;

while(t--){

cin>>a;

if(a>100)

cout<<a-10<<endl;

else

cout<<a<<endl;

}

return 0;

}

[AL - Team](https://vjudge.net/problem/CodeForces-231A)

#include <iostream>

using namespace std;

int main()

{

int t,p,v,count=0,ton;

cin>>t;

while(t--){

cin>>p>>v>>ton;

if((v==1 && ton==1) || (p==1 && ton==1) || (p==1 && v==1))

count++;

}

cout<<count<<endl;

return 0;

}

[AM - Theatre Square](https://vjudge.net/problem/CodeForces-1A)

import math

x,y,z=list(map(float, input().split()))

print(math.ceil(x/z)\*math.ceil(y/z))

[AN - Next Round](https://vjudge.net/problem/CodeForces-158A)

#include<iostream>

using namespace std;

int main(){

int n,k,count=0;

cin>>n>>k;

int a[n];

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

cin>>a[i];

}

if(k<=n)

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

if(a[i]>=a[k-1] && a[i]!=0)

count++;

}

cout<<count<<endl;

return 0;

}

[AO - Greater Average](https://vjudge.net/problem/CodeChef-AVGPROBLEM)

#include<iostream>

using namespace std;

int main(){

int t,a,b,c;

cin>>t;

while(t--){

cin>>a>>b>>c;

if(((float)(a+b)/2)>c)

cout<<"YES"<<endl;

else

cout<<"NO"<<endl;

}

return 0;

}

LOOPs and PATTERNS:

[A - Print Many Hello World](https://vjudge.net/problem/Aizu-ITP1_3_A)

#include <iostream>

using namespace std;

int main()

{

for(int i=0;i<1000;i++){

cout<<"Hello World"<<endl;;

}

return 0;

}

[B - The missing number](https://vjudge.net/problem/HackerRank-si-basic-the-missing-number)

#include <iostream>

using namespace std;

int main()

{

int i,sum=0,n;

for(i=1;i<=99;i++){

cin>>n;

sum=sum+n;

}

cout<<5050-sum<<endl;

return 0;

}

[C - Number reverse](https://vjudge.net/problem/HackerRank-si-basic-number-reverse)

#include <iostream>

using namespace std;

int main()

{

long int num,rev=0;

cin>>num;

while(num!=0){

int rem=num%10;

rev=(rev\*10)+rem;

num=num/10;

}

cout<<rev<<endl;

return 0;

}

[D - Compute N!](https://vjudge.net/problem/HackerRank-si-basic-compute-n)

#include <iostream>

using namespace std;

int main()

{

int num,fact=1;

cin>>num;

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

fact=fact\*i;

}

cout<<fact<<endl;

return 0;

}

[E - Natural numbers sum](https://vjudge.net/problem/HackerRank-si-basic-natural-numbers-sum)

#include <iostream>

using namespace std;

int main()

{

int num,sum=0;

cin>>num;

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

sum=sum+i;

}

cout<<sum<<endl;

return 0;

}

[F - Squares sum](https://vjudge.net/problem/HackerRank-si-basic-squares-sum)

#include <iostream>

using namespace std;

int main()

{

int num,sum=0;

cin>>num;

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

sum=sum+(i\*i);

}

cout<<sum<<endl;

return 0;

}

[G - Cubes sum](https://vjudge.net/problem/HackerRank-si-basic-cubes-sum)

#include <iostream>

using namespace std;

int main()

{

int num,sum=0;

cin>>num;

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

sum=sum+(i\*i\*i);

}

cout<<sum<<endl;

return 0;

}[H - Compute a power b.](https://vjudge.net/problem/HackerRank-si-basic-compute-a-power-b)

#include <iostream>

using namespace std;

int main()

{

int b,e;

long int sum=1;

cin>>b>>e;

if(e==0)

cout<<"1"<<endl;

else{

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

sum=sum\*b;

}

cout<<sum<<endl;

}

return 0;

}

[I - Compute fibonacci number](https://vjudge.net/problem/HackerRank-si-basic-compute-fibonacci-number)

#include <iostream>

using namespace std;

int main()

{

int a=0,b=1,c=1,n;

cin>>n;

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

c=a+b;

a=b;

b=c;

}

cout<<c<<endl;

return 0;

}

[J - Check Armstrong number](https://vjudge.net/problem/HackerRank-si-basic-check-armstrong-number)

 #include <iostream>

using namespace std;

int main()

{

int num,sum=0,rem,temp;

cin>>num;

temp=num;

while(temp!=0){

rem=temp%10;

sum=sum+(rem\*rem\*rem);

temp=temp/10;

}

if(sum==num)

cout<<"Yes"<<endl;

else

cout<<"No"<<endl;

return 0;

}

[K - Narcissistic numbers](https://vjudge.net/problem/HackerRank-si-basic-narcissistic-numbers)

#include <bits/stdc++.h>

using namespace std;

int main()

{

int num,sum=0,rem,temp,count=0;

cin>>num;

temp=num;

while(temp!=0){

count++;

temp=temp/10;

}

temp=num;

while(temp!=0){

rem=temp%10;

sum=sum+(pow(rem,count));

temp=temp/10;

}

if(sum==num)

cout<<"Yes"<<endl;

else

cout<<"No"<<endl;

return 0;

}

[L - Print Test Cases](https://vjudge.net/problem/Aizu-ITP1_3_B)

#include <bits/stdc++.h>

using namespace std;

int main()

{

int n,i=1;

while(true){

cin>>n;

if(n==0){

break;

}

cout<<"Case "<<i<<": "<<n<<endl;

i++;

}

return 0;

}

[M - How Many Divisors?](https://vjudge.net/problem/Aizu-ITP1_3_D)

#include <bits/stdc++.h>

using namespace std;

int main()

{

int a,b,c,count=0;

cin>>a>>b>>c;

for(int i=a;i<=b;i++){

if((c%i)==0)

count++;

}

cout<<count<<endl;

return 0;

}

[N - Non-Negative Product](https://vjudge.net/problem/CodeChef-NONNEGPROD)

#include <iostream>

using namespace std;

int main()

{

int t,neg,zero=0,n,a;

cin>>t;

while(t--){

neg=0;

zero=0;

cin>>n;

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

cin>>a;

if(a==0)

zero=1;

if(a<0)

neg++;

}

if((neg%2==0) || zero==1)

cout<<"0"<<endl;

else

cout<<1<<endl;

}

return 0;

}

[O - Print multiplication table](https://vjudge.net/problem/HackerRank-si-basic-print-multiplication-table)

#include <iostream>

using namespace std;

int main()

{

int num;

cin>>num;

for(int i=1;i<=10;i++){

cout<<num<<" \* "<<i<<" = "<<num\*i<<endl;

}

return 0;

}

[P - Number of multiples](https://vjudge.net/problem/HackerRank-si-basic-number-of-multiples)

#include <iostream>

using namespace std;

int main()

{

long int num;

cin>>num;

cout<<(num/3)+(num/5)-(num/15)<<endl;

return 0;

}

[Q - Next Round](https://vjudge.net/problem/CodeForces-158A)

#include <iostream>

using namespace std;

int main()

{

int n,k,count=0;

cin>>n>>k;

int a[n];

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

cin>>a[i];

}

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

if(a[i]==0){

break;

}

if(a[i]>=a[k-1]){

count++;

}

}

cout<<count<<endl;

return 0;

}

[R - Right-angled triangle pattern 1](https://vjudge.net/problem/HackerRank-si-basic-right-angled-triangle-pattern-1)

 #include <iostream>

using namespace std;

int main()

{

int n,k=1;

cin>>n;

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

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

cout<<k++<<" ";

}

cout<<endl;

}

return 0;

}

[S - Right-angled triangle pattern 2](https://vjudge.net/problem/HackerRank-si-basic-right-angled-triangle-pattern-2)

#include <iostream>

using namespace std;

int main()

{

int n,k;

cin>>n;

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

k=i;

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

cout<<k<<" ";

k=k+(n-j);

}

cout<<endl;

}

return 0;

}

[T - Hollow rectangle pattern](https://vjudge.net/problem/HackerRank-si-basic-hollow-rectangle-pattern)

#include <iostream>

using namespace std;

int main()

{

int l,b;

cin>>l>>b;

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

for(int j=1;j<=l;j++){

if(i==1 || i==b)

cout<<"\*";

else{

if(j==1 || j==l)

cout<<"\*";

else

cout<<" ";

}

}

cout<<endl;

}

return 0;

}

[U - Print half diamond pattern](https://vjudge.net/problem/HackerRank-si-basic-print-half-diamond-pattern)

 #include <iostream>

using namespace std;

int main()

{

int n;

cin>>n;

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

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

cout<<"\*";

}

cout<<endl;

}

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

for(int j=n-1;j>=i;j--){

cout<<"\*";

}

cout<<endl;

}

return 0;

}

[V - Rectangle pattern](https://vjudge.net/problem/HackerRank-si-basic-rectangle-pattern)

#include <iostream>

using namespace std;

int main()

{

int n;

cin>>n;

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

for(int j=n;j>=1;j--){

if(i==j){

cout<<"\*";

}

else

cout<<j;

}

cout<<endl;

}

return 0;

}

[W - Print pyramid pattern](https://vjudge.net/problem/HackerRank-si-basic-print-pyramid-pattern)

#include <iostream>

using namespace std;

int main()

{

int n;

cin>>n;

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

for(int j=n-i;j>=1;j--){

cout<<" ";

}

for(int k=1;k<=(2\*i)-1;k++){

cout<<"\*";

}

cout<<endl;

}

return 0;

}

[X - Inverted pyramid pattern](https://vjudge.net/problem/HackerRank-si-basic-inverted-pyramid-pattern)

#include <iostream>

using namespace std;

int main()

{

int n;

cin>>n;

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

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

if(i==1 || i==n)

cout<<"\* ";

else{

if(j==(n-i+1) || j==1)

cout<<"\* ";

else

cout<<" ";

}

}

cout<<endl;

}

return 0;

}

[Y - Palindromic right-angled triangle pattern](https://vjudge.net/problem/HackerRank-si-basic-palindrome-pyramid-pattern)

#include <iostream>

using namespace std;

int main()

{

int n,k,v;

char a;

cin>>n;

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

k=i;

a='A';

v=0;

for(int j=1;j<=(2\*i)-1;j++){

if(j<=k){

cout<<a++<<" ";

}

else{

cout<<(char)(a-2-v)<<" ";

v++;

}

}

cout<<endl;

}

return 0;

}