What is the value of K?

খুবি সহজ। প্রব্লেম এর বিবরণ problem statement এই দেওয়া আছে। এখানে nested loop use করে সমস্যাটি সমাধান করতে হবে। outerloop এ i count হবে, inner loop এ j count হবে. i চলবে 0 থেকে m-1 পর্যন্ত এবং প্রতিবার i er value এর জন্য j চলবে 0 থেকে i-1 পর্যন্ত বাকিটা problem statement এই দেওয়া আছে।

locked

- **Problem**
- Submissions

Consider the following equations:

Equation No	Equation
1	$F_{ij} = \sum_{i=0}^{m-1} \sum_{j=0}^{i-1} (i + j - 1)$
2	$K = K + F_{ij}$
3	$K = K + F_{ij} - 2$

First you have to check whether Fij is divisible by 2 or not. If it is divisible by two, final result K will be updated by equation 2.

Otherwise two procedures you have to check. First one is whether Fij is divisible by 3 or not. If it is divisible by 3, final result K will be updated by equation 3 otherwise the final result K will remain unchanged. Initially, value of K is zero.

Input Format

There are several test cases. Each test case will start with an integer m.

Constraints

$0 < m < 10000$

Output Format

Print "Test Case #:" without quotes where # represents test case no. Then print the value of final result K. see output format

Sample Input 0

```
4
5
```

Sample Output 0

```
Test Case 1:9
Test Case 2:20
```

Solution:

```
#include <bits/stdc++.h>

using namespace std;

int main()

{

   freopen("test.txt", "r", stdin);

   long long m, p=1;

   while(scanf("%lld", &m)==1)

   {

      long long f=0, k=0;
```

```
        for(long long i=0; i<m; i++)
        {
            for(long long j=0; j<i; j++)
            {
                f=i+j-1;
                if(f%2==0)
                {
                    k+=f;
                }
                else
                {
                    if(f%3==0)
                        k=k+f-2;
                }
            }
        }
        printf("Test Case %lld:%lld\n", p++, k);
    }
}
```

Distributions of Co-prime

প্রব্লেম টা দেখতে কঠিন মনে হলেও আসলে solution টা খুবি সহজ। দুইটি value এর gcd বের করলেই problem solved. তবে মনে রাখতে হবে ভালুএ দুইটির gcd 1 হতে হবে এবং দুইটির যোগফল অবশ্যই N এর সমান হতে হবে। যদি এই দুইটি condition fulfill হয় তাহলে তা print করে দিলেই হবে।

locked

-
- Submissions

A group of numbers is co-prime when the Greatest Common Divisor of any two of them is 1. You have given a number N. Your task is to find those sets of positive co-prime numbers which sums equal to number N.

Input Format

There are several test cases. Each test case will start with an integer N. Input will be terminated by EOF.

Constraints

0< N <= 1000000

Output Format

Print "Test Case #:" without quotes where # represents test case no. Then print all possible value of co-primes which sums equal to N. If there is no such possible co-primes print "No possible Co-primes." without quote. see output format.

Sample Input 0

```
5
10
25
```

Sample Output 0

```
Test Case 1:
(1,4)
(2,3)
Test Case 2:
```

(1,9)
(3,7)
Test Case 3:
(1,24)
(2,23)
(3,22)
(4,21)
(6,19)
(7,18)
(8,17)
(9,16)
(11,14)
(12,13)

Solution:

```
#include <bits/stdc++.h>

using namespace std;


int gcd(int a, int b)

{

   if (b == 0)

      return a;

   return gcd(b, a % b);


}


int main()

{

   int n, t=1;

   while(scanf("%d", &n)==1)

   {

      int p=0;
```

```
        printf("Test Case %d:\n", t++);
        for(int i=1, j=n-1; i<=n/2; i++, j--)
        {
            int q = gcd(i, j);
            if(q==1 && (i+j)==n)
            {
               p=1;
               printf("(%d,%d)\n",i,j);
            }
        }
        if(p==0)
        {
           cout<<"No possible Co-primes."<<endl;
        }
    }
    return 0;
}
```

Strange Calculator

solution খুবি সহজ। just 3 টি character input নিয়ে 1st & last charater এর aschi value থেকে 'A' er aschii value minus করে তার সাথে ১০ জগ করে জেই value দুইটা পাবো তা 2nd character er উপর ভিত্তি করে (+,-,/,*,%) করে দেবো। তবে একটা দিক খেয়াল রাখতে হবে যে 1st & last character কিন্তু বড় ছোট হতে পারে। তাই আমরা character দুইটিকে toupper() fucntion use করে capital letter ee convert করে তারপর কাজ করব।

locked

- **Problem**
- Submissions

A new calculator that can accomplish arithmetic operation such as summation(+), subtraction(-), multiplication(*), division(/) and remainder(%) operation between two character.

This calculator follows some rules:

1) Only letters and digits are allowed in the task.

2) Small letter and Capital Letter Alphabets are considered to be same.

3) The value of 'a' or 'A' is 10 and it will increased by one and continues upto 'z' or 'Z'.

4) The value of '0' is 50 and it will increased by one and continues upto '9'.

5) In this calculator, all kinds of arithmatic operations will be performed according to their assigned value and you have to print the integer value as a result.

6) Arithmetic operations between letter & letter as well as letter & digit are possible.

Suppose, a, + and B are the inputs.

That means you will perform addition operation between a and b. so what will be the result? it will be 21. how? lets see.

according to the rules, the assigned value of a is 10 and value of B is 11. since + is taken as input, now add 10 and 11 is equal to 21.

so, a+B=21

Input Format

There are several test cases. Each test case will start with three character variable where first and third variable p and r represents operand and second character q denotes arithmetic operator.Input will be terminated by EOF.

Constraints

'a' <= p,r <= 'z' OR

'A' <= p,r <= 'Z' OR

'0' <= p,r <= '9' OR

AND

q = '+' or '-' or '*' or '/' or '%'

Output Format

Print "Test Case #:" without quotes where # represents test case no. Then print result of desired arithmetic operation. see output format.

Sample Input 0

```
a + B
0 + 9
```

Sample Output 0

```
Test Case 1:21
Test Case 2:109
```

Solution:

```
#include <bits/stdc++.h>

using namespace std;


int main()
```

```
{
    char a, b, c;
    int t=1;
    while(scanf(" %c %c %c", &a, &b, &c)==3)
    {
        int m, n;
        if(a>='a' && a<='z' || a>='A'&&a<='Z')
            m = (toupper(a)-'A')+10;
        else
            m = (a-'0')+50;
        if(c>='a' && c<='z' || c>='A'&&c<='Z')
            n = (toupper(c)-'A')+10;
        else
            n = (c-'0')+50;
        if(b=='+') cout<<"Test Case "<<t<<":"<<n+m<<endl;
        else if(b=='-') cout<<"Test Case "<<t<<":"<<m-n<<endl;
        else if(b=='*') cout<<"Test Case "<<t<<":"<<n*m<<endl;
        else if(b=='/') cout<<"Test Case "<<t<<":"<<m/n<<endl;
        else if(b=='%') cout<<"Test Case "<<t<<":"<<m%n<<endl;
        t++;
    }
}
```

Ohh Corona!

এত একটি string problem. থিক আগের মতই দুইটি string input নিয়ে string এর প্রতিটা character কে toupper() function দিয়ে capital এ convert করে than তার থেকে 'A' minus করে সব character er summation এর সাথে corona er summation compare করতে হবে।

locked

- **Problem**
- Submissions

In recent world COVID-19 also called CORONA virus is a great issue to face. When all world is going to house quarantine Emon and Saiful has nothing to do on house. So that they playing a game named "Ohh Corona!".

The rules of this game is simple. Emon and Saiful says two words. Every word has a score and CORONA word also has a score. The minimum distance between score of CORONA and pronounced word by Emon or Saiful decides who will be the winner.

Lets see an example:

Emon said: JAVA

Saiful said: RUBY

JAVA - 34

RUBY - 66

CORONA - 66

Score of CORONA is 66.

Emon scored 34 and distance from 66 to 34 is 32.

Similarly, Saiful scored 66 and distance from 66 to 66 is 0.

Since distance between Saiful's score and CORONA's score is minimum, saiful is the winner.

Congratulations Saiful!

You are the referee of this game. So that your task is to find out the winner. Remember that, string is not case sensitive.

Input Format

In every line of input there will be two strings seperated with a space represents the words of Emon and Saiful correspondly.

Constraints

Each string can be 100 caracter long.

Output Format

For every pair of input either you have to congratulate Emon by writing "Congratulations Emon!" or congratulate Saiful by announcing "Congratulations Saiful!" without quote.If no winner is found,you should print "Try Again!" without quote.

Sample Input 0

```
JAVA RUBY
JAVA PYTHON
```

Sample Output 0

```
Congratulations Saiful!
Try Again!
```

Solution:

```
#include <bits/stdc++.h>

using namespace std;

int main()

{

    char a[10000], b[10000];
```

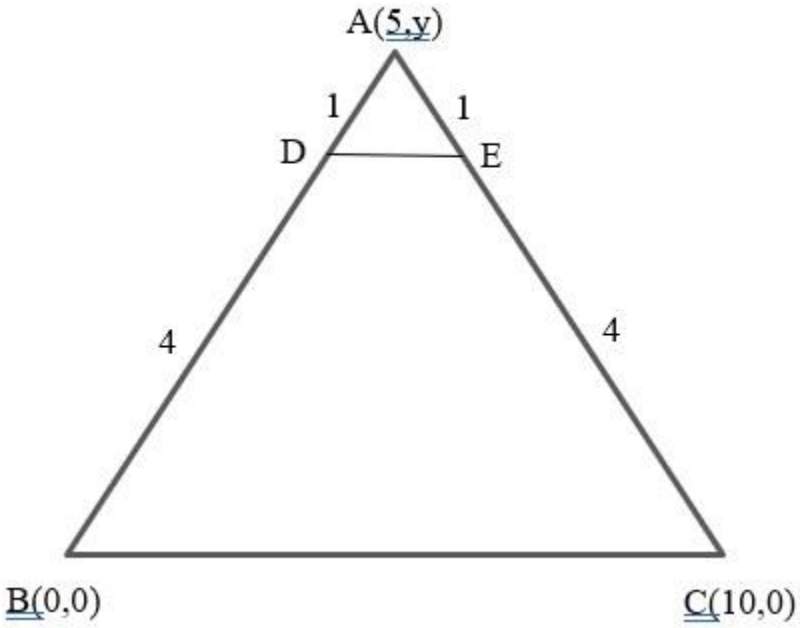
```
    while(scanf("%s %s", a, b)==2)
    {
        int m=0, n=0;
        for(int i=0; i<strlen(a); i++)
        {
            m+=(toupper(a[i])-64);
        }
        for(int i=0; i<strlen(b); i++)
        {
            n+=(toupper(b[i])-64);
        }
        if(abs(66-m)<abs(66-n))
            printf("Congratulations Emon!\n");
        else if(abs(66-m)>abs(66-n))
            printf("Congratulations Saiful!\n");
        else
            printf("Try Again!\n");
    }

}
```

Equilateral Triangle

locked

- **Problem**
- Submissions



Consider this as a equilateral triangle ABC. here, D intersects BA and E intersects CA by 4:1 ratio shown in the figure.

Your task is simple. Print the output of y, area of ABC and area of ADE in different line. If you found any fraction value, just show the total value with 2 fraction points.

Input Format

Consider the values given in the image.

Constraints

no need to take any input

Output Format

just print three outputs after calculating

first one is output of y

then output area of ABC

and output area of ADE in different lines.

Solution:

```
#include<stdio.h>
int main()
{
    printf("8.66\n");
    printf("43.30\n");
    printf("1.73\n");
}
```

Cycling Through Garden

1st let's understand the problem,
এখানে পুরো কাজটা করছে একটি Tree এর উপর। যার প্রত্যেক Node থেকে অন্য Node এ যেতে শুধুমাত্র একটি পথ রয়েছে।

আমাদের ইনপুট হচ্ছে Sequence of Node character.
Same Character 1st time আসলে বুঝতে হবে Node এ প্রবেশ করেছি, Last Time আসলে Node থেকে বের হয়ে গেছি মানে ঐ Node এর পর আর কোনো এমন Node নেই যেটা আমরা যাই নি।

Question এ বলা আছে, একটি Node সর্বোচ্চ একবার ভিজিট হবে।

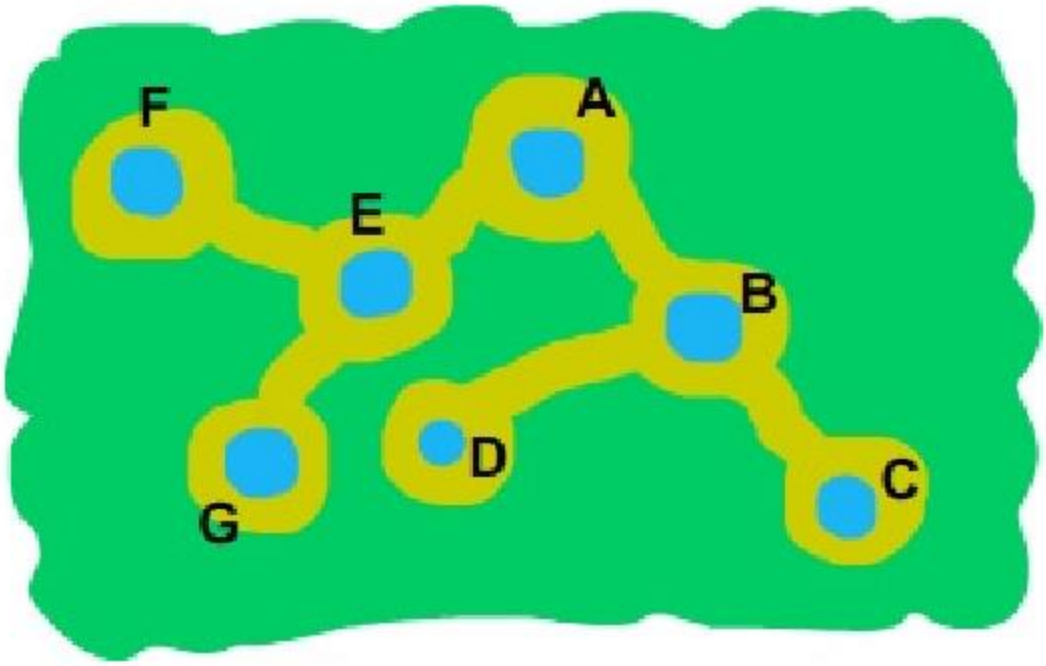
locked

- **Problem**
- Submissions

Karim regular goes out with his bicycle to a large garden beside his house to exercise.

There are several trails in the garden. A trail starts from one water sprinkler to another and the sprinkler are marked by distinct letters from 'A' to 'Z'. The trails are designed in such a way that from the sprinkler at entrance you can go to any other sprinkler using exactly one path if you do not traverse a trail more than once. Also, You can go from each sprinkler to any other sprinkler using exactly one path if you do not traverse a trail more than once.

While traversing the trails with his cycle, Karim notes the names of the sprinklers in his notepad. He will write down the name of a sprinkler if he enters the sprinkler for the first time or leaves this sprinkler for the last time.To complete his exercise he must have to leave the sprinkler if he enters into it. And not surprisingly, geek Karim follows a peculiar method to ensure that he visits all the trails of the garden. When he comes to a sprinkler he looks for a trail which he has not traversed yet. If he finds such trail, he follows that one. Otherwise, he uses the trail that he used to come here for the first time except if it's the entrance he stops exercising. He always starts from the entrance and guess what, his peculiar strategy always guarantees to finish him at the entrance and all the trails are also visited.



For example, in the above garden the main entrance is at A. So Karim will start from A. When Karim is at A, he can choose either of the trails. Say he chooses the trail leading to E. Then he can choose the trail to G or trail to F. Say he chooses F. Now he does not have any unvisited trail from F, so he will go back to E. Now he must choose trail to G and then similarly will come back to E and back to A. Then he will go towards B. Now he again has two choices. He can go to C or D, say he goes to C, then he will be back to B, then will go to D, and hence back to B and also back to A thus finishing his exercise. So after his exercise you will find: AEFFGGEBDDCCBA in his notepad. Can you find the number of trails attached to the sprinklers just looking at the sequence written in the notepad?

Also, as Karim is so much into cycling, sometimes he forgets to notedown the sprinklers name when leaving a sprinkler. In that case he thinks his exercise is not complete.

Input Format

First line of the test file contains a positive integer T (T < 100) denoting the number of test cases.

Hence follows T lines, each containing a valid sequence of sprinkler names. A sprinkler name will always be capital Latin letter ('A', 'B', . . . , 'Z'). You may assume that there will be at least two sprinklers in garden, otherwise there would have been no meaning of exercise right?

Constraints

T<= 100

Output Format

For each case output the case number in the first line, followed by the number of trails for each sprinkler. First print the sprinkler name followed by the count of trails. These lines should be in lexicographical order of sprinkler name. Note that, you should not print about a sprinkler which is not present in the garden.

If Karim forgot to notedown the sprinkler's name when leaving a sprinkler, print "His exercise is not complete." without quotation.

Look at the sample input output for more specific format of input output. after each case a new line is printed.

Sample Input 0

```
3
AEFFGGEBDDCCBA
PQRSSQP
ZAABBZ
```

Sample Output 0

```
Case 1
A = 2
B = 3
C = 1
D = 1
E = 3
```

```
F = 1
G = 1
Case 2
His exercise is not complete.
Case 3
A = 1
B = 1
Z = 2
```

Solution:

```
#include <bits/stdc++.h>

#define ms(a,b)         memset(a, b, sizeof(a))

#define SZ(a)           (int)a.size()

#define TEST_CASE(t)    for(int z=1;z<=t;z++)

#define CASE_PRINT      cout<<"Case "<<z<<endl


using namespace std;

int ara[30];


int main()

{

    int t;

    cin>>t;

    TEST_CASE(t)

    {

        stack<int>st;

        string str;


        cin>>str;
```

```
        ms(ara,0);
        st.push(str[0]-'A');
        for(int i=1; i<SZ(str); i++)
        {
            int b=str[i]-'A';
            if(st.top()==b)
            {
                st.pop();
                if(!st.empty())
                {
                    ara[st.top()]++;
                    ara[b]++;
                }
            }
            else
                st.push(b);
        }
        CASE_PRINT;
        for(int i=0; i<26; i++)
            if(ara[i])
                cout<<(char)('A'+i)<<" = "<<ara[i]<<endl;

    }
    return 0;
}
```

Sum of odd numbers

locked

- Problem
- Submissions

N is provided for you to know about interesting sum. The sum will be calulated by following procedure:

Suppose, N =4.

Summation of First 4 odd numbers 1+3+5+7=16

Then, First number and last number from above series will be deleted from list.

so, 3+5=8

again, first number and last number of above series will be deleted from the list. so, 0 = 0

The sum of odd numbers= 16 + 8 + 0=24

Suppose, N =5.

Summation of First 5 odd numbers 1+3+5+7+9=25

Then, First number and last number from above series will be deleted from list.

so, 3+5+7=15

again, first number and last number of above series will be deleted from the list. so, 5 = 5

The sum of odd numbers= 25 + 15 + 5 =45

Input Format

There are several test cases.

Each test case will start with an integer number N. Input will be terminated by EOF.

Constraints

N<=1000000

Output Format

Print "Test Case #:" for each test case without quote and # represents test case no. Then, show the result of sum for given N in the same line. see sample output format.

Sample Input 0

```
4
5
100000
```

Sample Output 0

```
Test Case 1:24
Test Case 2:45
Test Case 3:250005000000000
```

Solution:

```
#include <bits/stdc++.h>



int main()
{
    unsigned long long sum,m,n,T=1;
    while(scanf("%llu",&m)==1)
    {
        n=(m-1)/2+1;
        //n=1+(m-1)*2;
        if(m%2==0)
            sum=m*(n*(4+(n-1)*2)/2);
        else
            sum=m*(n*(2+(n-1)*2)/2);
        printf("Test Case %llu:%llu\n",T++,sum);
```

```
    }
    return 0;
}
```

Repeated question pattern

locked

The hard part is printing the source code as output. Check the problem code to know how to print the code as output.

- **Problem**
- Submissions

Write a program to calculate area of a rectangle. Length and width of rectangle will be given as input.

Input Format

Input starts with a testcase T. Each test case starts with two integes l and w.

Constraints

T>=1

l,w are positive integers.

Output Format

Your task is to print your source code along with area of the rectangle.see output format.

Sample Input 0

```
1
5 20
```

Sample Output 0

```
Case 1:
Source Code:
#include<stdio.h>
int main()
{
int t,l,w;
scanf("%d %d",&l,&t);
```

```
printf("%d\n",l*t);
return 0;
}
Output:
100
```

Solution:

```
#include <bits/stdc++.h>

using namespace std;

int main()

{

    int t;

    scanf("%d", &t);

    for(int i=1; i<=t; i++)

    {

        int l, w;

        scanf("%d%d", &l, &w);

        printf("Case %d:\nSource Code:\n#include<stdio.h>\nint main()\n{\nint
t,l,w;\nscanf(\"%%d %%d\",&l,&t);\nprintf(\"%%d\\n\",l*t);\nreturn
0;\n}\nOutput:\n%d\n", i, l*w);

    }

}
```

Brilliant Minds are Better Businessmen!!

locked

সহজ উত্তর। Radius Rectangular এর Diagonal এর সমান। ছবিতে একটি Diagonal দেওয়া আছে UV. Output is same as input b.

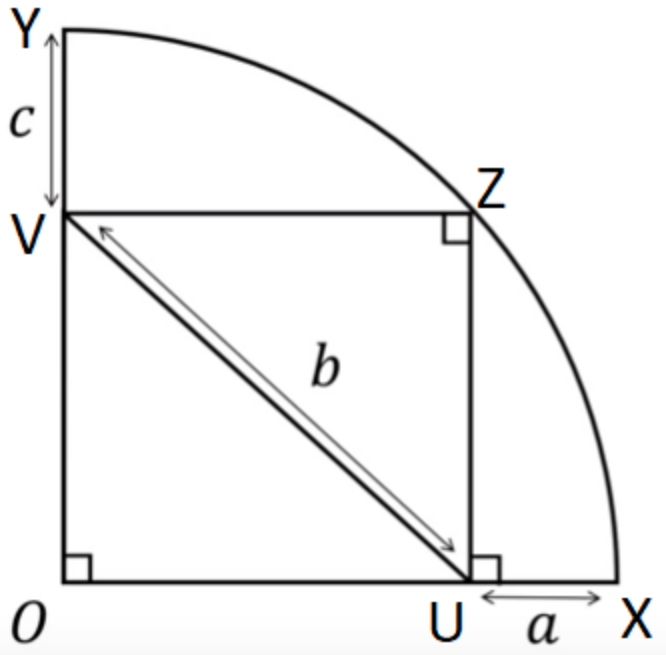
- **Problem**
- Submissions

You must remember Wakanda. A nation of Africa which has a rare and powerful metal Vibranium and using this metal, Wakanda has become one of the most powerful and developed countries of the world.

The Republic of Uganda is another country of East Africa which also has a secret, rare and powerful metal called “Chetona”. “Chetona” is more powerful than any other existing metal. Just not only other metals, “Chetona” is more powerful than any existing thing. It can heal you if you are sick, it can solve your hunger, it can educate you or in brief, this is the ultimate solution for everything.

In Uganda, if you have “Chetona” then you don’t need anything else. But if you don’t have “Chetona”, you will be dead, anytime anywhere, you never know. The business of “Chetona” is the main business of Uganda and the political party who can run the business better gets all the votes of wise people of Uganda.

To run the business of “Chetona”, the politicians of Uganda always brainstorm solving mathematical problems in their leisure times. As they are so intelligent, they like to challenge themselves and they solve all the hardest mathematical problems mathematicians have ever seen. Recently they found a really hard geometrical problem. Even the most brilliant minds of Uganda have failed to solve the problem.



In the figure, OX and OY are perpendicular line segments. A quarter-circle XZY is drawn. Z, U and V are points on XY, OX and OY respectively such that UZ is perpendicular to OX and VZ is perpendicular to OY. The lengths XU = a, UV = b, VY = c are given. You need to find the radius of the quarter circle.

We all know this is hard as Uganda's most brilliant minds could not solve this. But give it a try.

Input Format

First line of the input is T(1<=T<=1000), the number of test cases. Each test case contains three integers a, b and c (1 <= a, b, c<= 998419).

Constraints

1<=T<=1000

1<=a,b,c<=998419

Output Format

For each test case, print the case number followed by a single integer denoting the value of the radius.

If the calculated answer is in decimal point, only print the integer value of the number.

See the sample output for clarification.

Sample Input 0

```
1
2 5 1
```

Sample Output 0

```
Case 1: 5
```

Solution:

```
#include<bits/stdc++.h>

using namespace std;

int main()

{

    int t,i,a,b,c,ans;

    scanf("%d",&t);

    for(i=1;i<=t;i++)

    {

        scanf("%d%d%d",&a,&b,&c);


        printf("Case %d: %d\n",i,b);

    }


    return 0;

}
```

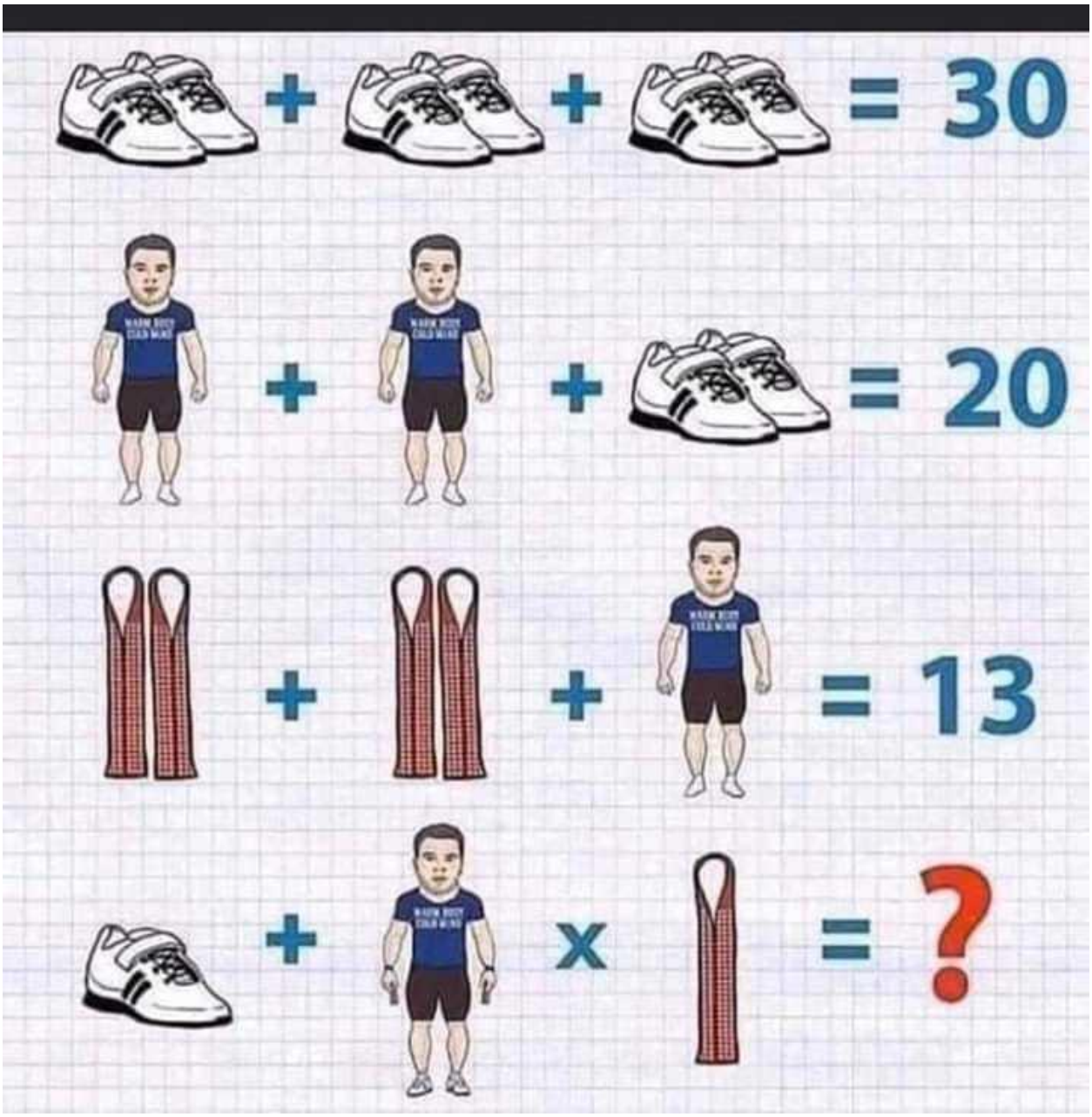
Funny Calculation

locked

Check the Picture, in 4th row the Boy is wearing pair of shoes & has pair of ties in his hands.

- **Problem**
- Submissions

What will be the value of question marks in following question?



Input Format

No input

Constraints

No constraint

Output Format

Just print the value of (?) mark by calculation.

Solution:

```
#include <iostream>
using namespace std;
int main() {
    printf("43\n");
    return 0;
}
```

Take Your Treat!!

locked

- **Problem**
- Submissions

Anjan is 4 years old. Recently he has admitted himself in Bandorban kindergarten School. At the 1st day his class teacher learned him summation of two numbers and give him some homework. But suddenly that day he(anjan) felt very sick. So he requested to his elder brother efty to do the homework. But Efty is very lazy. He wants to write a c program to calculate the sum of two number. Now can you help him to make the calculator?? He has promised that he will give you a treat for this task.

Your task is very easy. You are given two integer numbers. You have to print the summation of those numbers.

Input Format

Input will start with a integer t that denote the tast cases. Each test case will start with two integers a & b where 0<=a, b<=10^100.

Constraints

0<=a, b<=10^100

Output Format

Print the summation of a & b.

Sample Input 0

```
3
25 26
4256525 4525625
1 1
```

Sample Output 0

```
Case 1: 51
Case 2: 8782150
Case 3: 2
```

Solution:

```
#include <bits/stdc++.h>

using namespace std;

int main()

{
```

```
int t;
scanf("%d", &t);
for(int i=1; i<=t; i++)
{
    string a, b, c="", sum="";
    int d, digit, carry=0, h, l1, l2;
    cin>>a>>b;
    l1=a.length();
    l2=b.length();
    d=abs(l1-l2);
    for(int j=0; j<d; j++)
    {
        c+="0";
    }
    //cout<<c<<endl;
    if(a.length()<b.length())
        a=c+a;
    else
        b=c+b;
    //cout<<a<<" "<<b<<endl;
    for(int j=b.length()-1; j>=0; j--)
    {
        digit = (a[j]-'0')+(b[j]-'0')+carry;
        //cout<<digit;
        h= digit%10;
        carry= digit/10;
```

```
            sum.push_back(h+'0');
        }
        if(carry>0)
            sum.push_back(carry+'0');
        reverse(sum.begin(), sum.end());
        cout<<"Case "<<i<<": "<<sum<<endl;
    }
}
```

Possible findings

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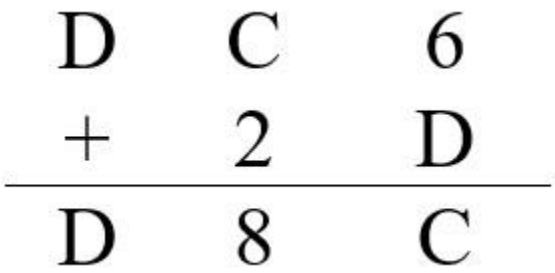
Consider the math in 3 equation,
6+D = C
C+2 = 8

D=D
the rest is calculation

- **Problem**
- Submissions

There are two numbers in the picture one is a 3-digit number and the other is 2-digit number.



If summation of each two digit produces only a single digit what will be the possible value of C and D?

Input Format

NO INPUT

Constraints

NO CONSTRAINT

Output Format

Just show the output of C and D respectively in a line seperated by a space.

Solution:

Find The Ratios

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First you have to count how many numbers of each type, then divide them with the total number to get average.
to print upto 6 decimal point you have to use .6f in printf

- **Problem**
- Submissions

Given an array of integers, calculate the ratios of its elements that are positive, negative, and are zeros. Print the decimal value of each fraction on a new line.

Note: This challenge introduces precision problems. The test cases are scaled to six decimal places, though answers with absolute error of up to are acceptable.

Input Format

The first line contains an integer t which denotes the test case number, next line contains an integer n, denoting the size of the array. next line contains space-separated integers describing an array of numbers. arr(arr[0], arr[1], arr[2],.....arr[n-1])

Constraints

0<=n<=100 -10^4>=arr[i]<=10^4

Output Format

You must print the following 3 lines with test case number:

A decimal representing of the fraction of positive numbers in the array compared to its size.

A decimal representing of the fraction of negative numbers in the array compared to its size.

A decimal representing of the fraction of zeros in the array compared to its size.

Sample Input 0

```
2
6
-4 3 -9 0 4 1
5
1 1 0 -1 -1
```

Sample Output 0

```
Case 1: 0.500000
        0.333333
        0.166667
Case 2: 0.400000
        0.400000
        0.200000
```

Solution:

```
#include <bits/stdc++.h>

using namespace std;

int main()

{

    //freopen("test.txt", "r", stdin);

    int t;

    scanf("%d", &t);

    for(int i=1; i<=t; i++)

    {

        int a;

        cin>>a;

        float b[a+1], p=0, m=0, z=0;

        for(int j=0; j<a; j++)

        {

            cin>>b[j];

            if(b[j]<0)
```

```
            m++;
        else if(b[j]>0)
            p++;
        else
            z++;
    }
    printf("Case %d: %.6f\n        %.6f\n        %.6f\n", i, p/a,m/a,z/a);
  }
}
```

Is Rina Arrogant?

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5 টা Number Repeat হয়ে সিরিজ হয়েছে। Modulo দিয়ে Position বের করতে পারলেই Output পাওয়া যায়। এখানে Input Range টাই Main Factor. যেটার জন্য Long Long Int Data Type use করতে হবে।

- **Problem**
- Submissions

Do you know Rina?

She is called "Math Scientist" by his school friends for her interest & marks in any math related subject.

She loves to give people math related problem & tests people how much they know. Of course some people might think, She is arrogant & tries to insult others by giving complex math question.

But according to Rina, Math is important. Instead of being afraid with the question people should try to solve it. Successful or unsuccessful doesn't matter.

Rina has heard Students of USTC are going to participate in a programming contest.Rina knows that math can be solved by creating programs. So She has come forward with a mathematical problem for the participators.

Rina has provided a number seires that is given below,

7, 4, 5, 1, 2, 7, 4, 5, 1, 2, ...

You have to print the Nth term of the series as output.

Input Format

Input starts with a integer T that means test case where T<10000.

Another interger N is provided where 1<=N<=10^18

Constraints

T<10000

1<=N<=10^18

Output Format

Output starts with test case , then the Nth term is printed.

Check Sample output for more clearification.

Sample Input 0

```
2
3
10
```

Sample Output 0

```
Case 1: 5
Case 2: 2
```

Solution:

```
#include <bits/stdc++.h>
using namespace std;
int main()
{
    int t;
    scanf("%d", &t);
    for(int i=1; i<=t; i++) //7, 4, 5, 1, 2
    {
        long long n;
        scanf("%lld", &n);
        if(n%5==1)
            printf("Case %d: 7\n", i);
        else if(n%5==2)
            printf("Case %d: 4\n", i);
        else if(n%5==3)
```

```
            printf("Case %d: 5\n", i);
        else if(n%5==4)
            printf("Case %d: 1\n", i);
        else
            printf("Case %d: 2\n", i);
    }
}
```