

Ex. No.:

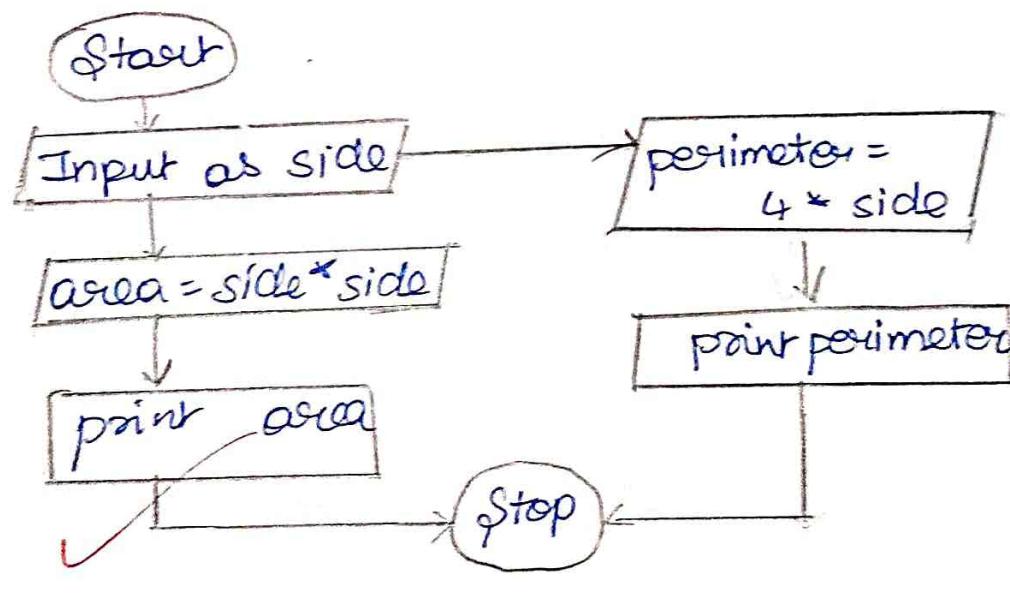
Date:

Calculate Area and Perimeter

Write an Algorithm and draw a Flowchart to Calculate the area and perimeter of a square.

Algorithm:

- Step 1 = Start
- Step 2 = Get a input from user as side
- Step 3 = For area , side * side
- Step 4; For perimeter, 4 * side
- Step 5 ; Print area, perimeter
- Step 6 ; Stop

Flowchart:

2

Ex. No.:

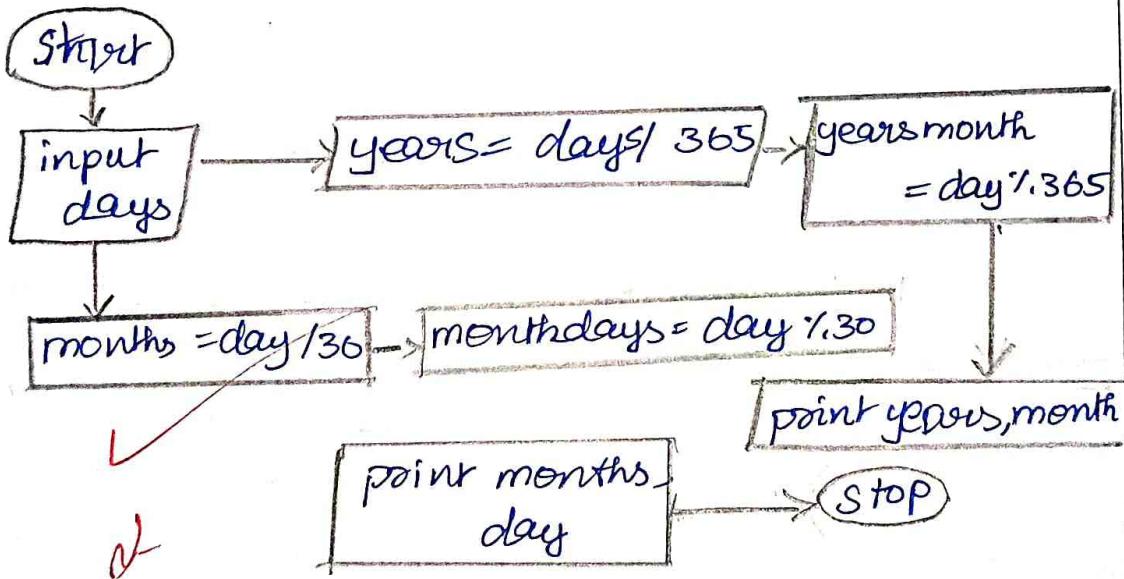
Date:

Days to Year Conversion

Write an Algorithm and draw a Flowchart to convert the given days into years & months.

Algorithm:

- Step 1: Start
- Step 2: Get the number of value from user as days
- Step 3: For months days / 30
- Step 4: For years days / 365
- Step 5: For extra days, days % 30 for months
- Step 6: For extra days, days % 365 for years
- Step 7: Point months, years
- Step 8: Stop

Flowchart:

Ex. No.:

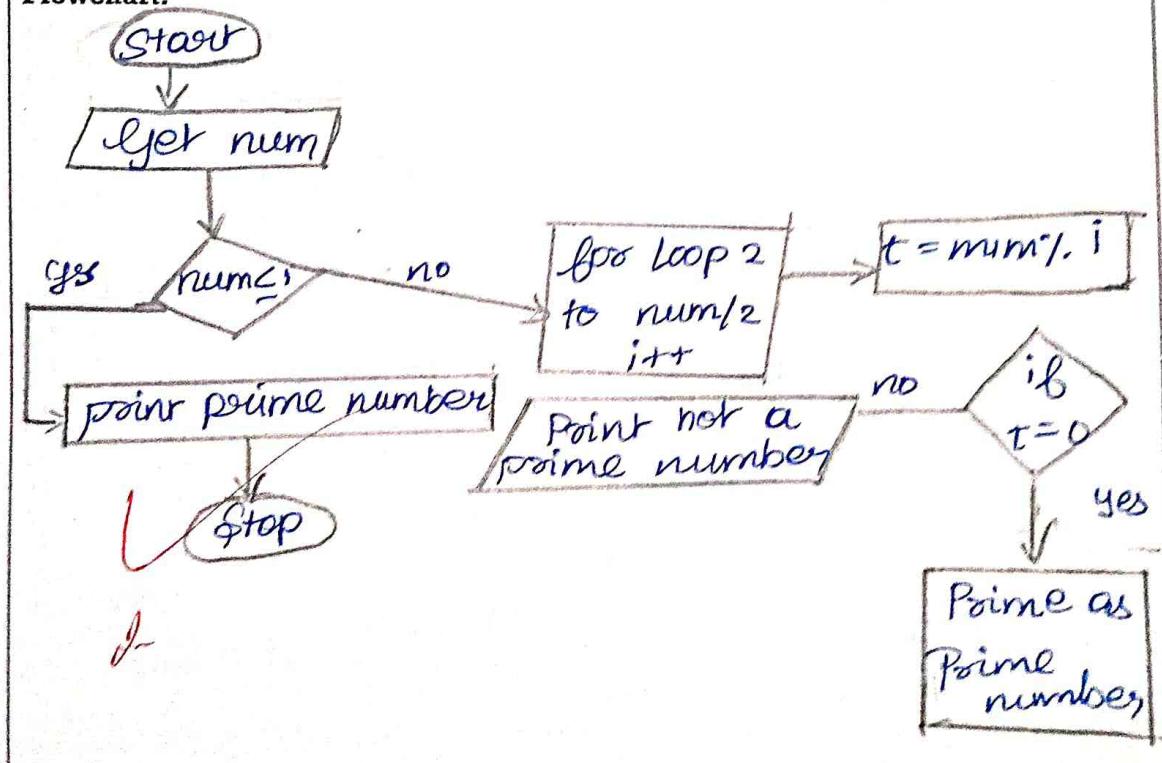
Date:

Prime Number

Write an Algorithm and draw a Flowchart to check whether the given number is prime or not.

Algorithm:

- Step 1: Start;
- Step 2: Get a number from user as num
- Step 3: Use for loop from 2 - num/2
- Step 4: In loop $\text{num} / (\text{num}/2)$
- Step 5: If it comes zero, then it's a prime number and print
- Step 6: If it not comes zero, then print it as not a prime number.
- Step 7: Stop.

Flowchart:

Ex. No.:

Date:

Leap Year

Write an Algorithm and draw a Flowchart to check whether the given year is Leap year or not.

Algorithm:

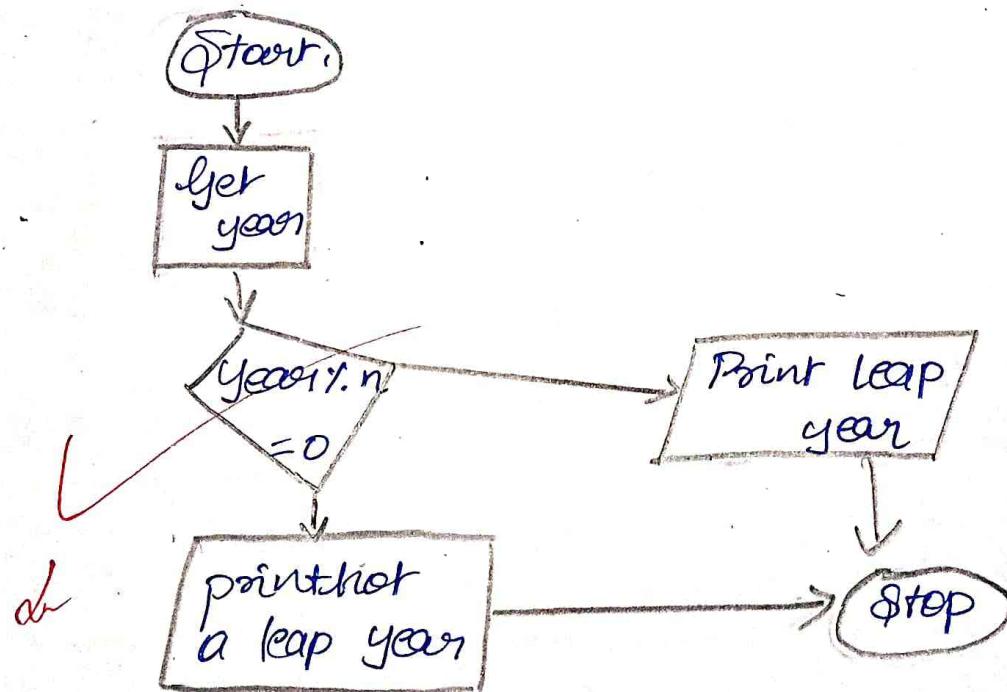
Step 1: start

Step 2: Get a year from user as year

Step 3: if $year \% 4 == 0$, point it as a leap year

Step 4: else point it as not a leap year

Step 5: stop.

Flowchart:

Ex. No.:

Date:

Palindrome Number

Write an Algorithm and draw a Flowchart to check whether the given number is palindrome number or not.

Algorithm:

Step 1: Start

Step 2: Get a number from user as n

Step 3: Initializing temp = n, Rem = 0

Step 4: Rem = n % 10,

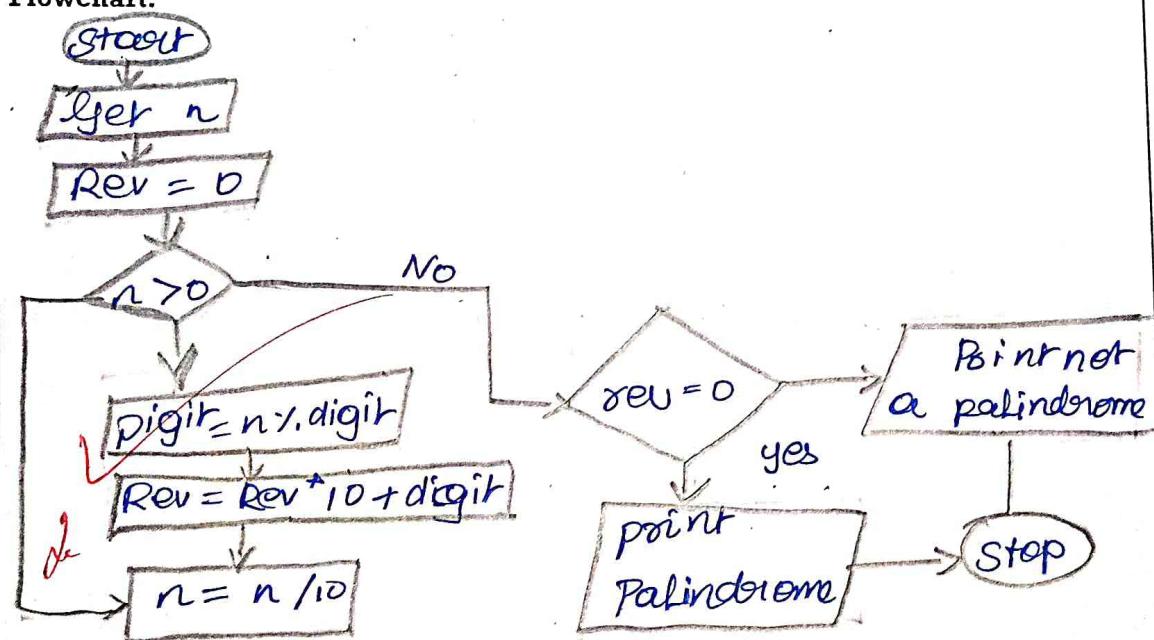
Step 5: Rev = Rev * 10 + Rem

Step 6: n = n / 10

Step 7: if(n > 0) then goto step 4 to 6 else go to

Step 8: Step 8.

if C1

Flowchart:

Ex. No.:

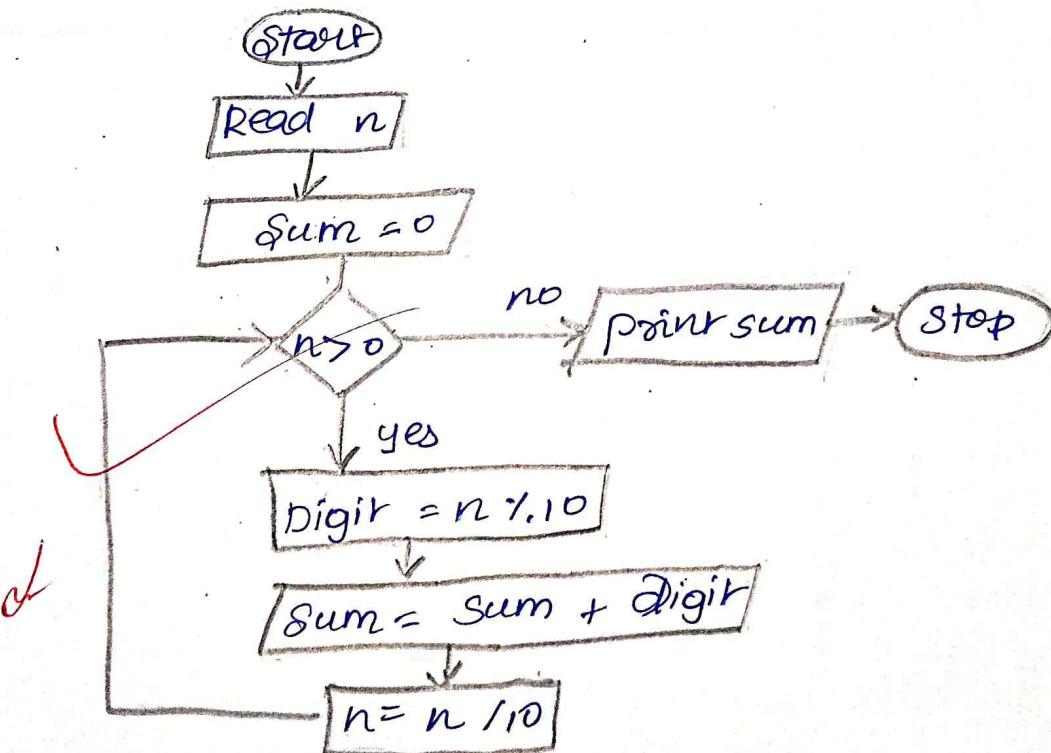
Date:

Sum of Digits

Write an Algorithm and draw a Flowchart to calculate the sum of digits in the given number.

Algorithm:

- Step 1: Start
- Step 2: Read n
- Step 3: Initialize sum = 0
- Step 4: check $n \neq 0$, add till loop ends
- Step 5: calculate digit = $n \% 10$
- Step 6: calculate $n = n / 10$
- Step 7: Calculate sum = sum + digit
- Step 8: Point * sum
- Step 9: Stop.

Flowchart:

Ex. No.:

Date:

Say "Hello, World!" With C**Problem Statement:**

This is a simple challenge to help you practice printing to stdout. We're starting out by printing the most famous computing phrase of all time! In the editor below, use either printf or cout to print the string Hello, World! to stdout.

Input Format

You do not need to read any input in this challenge.

Output Format

Print *Hello, World!* to stdout.

Sample Output 1

Hello, World!

Program:

```
#include <stdio.h>
int main() {
    printf("Hello, World!");
    return 0;
}
```

dr

Program:

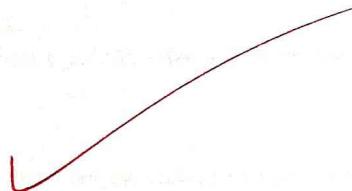
```
#include <stdio.h>
int main() {
    char ch;
    char s[100];
    char sen[100];
    scanf("%c", &ch);
    getchar();
    fgets(sen, sizeof(sen), stdin);
    printf("%c\n", ch);
    printf("%s\n", s);
    printf("%s\n", sen);
    return 0;
}
```

ch

Program:

```
# include <stdio.h>
int main()
{
    int a,b;
    float c,d;
    scanf("%d %d", &a, &b);
    scanf("%f %f", &c, &d);
    printf("%d %d\n", a+b, a-b);
    printf("%.1f %.1f\n", c+d, c-d);
    return 0;
}
```

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J

Program:

```
#include <stdio.h>
int main() {
    char name;
    int m1, m2, m3;
    int average;
    scanf("%c", &name);
    scanf("%d %d %d", &m1, &m2, &m3);
    average = (m1 + m2 + m3) / 3;
    printf("%c\n", name);
    printf("%d\n", average);
    return 0;
}
```

of

Program:

```
#include <stdio.h>
int main()
{
    int a;
    long b;
    char c;
    float d;
    double e;
    scanf ("%d %ld %c %f %lf", &a, &b,
           &c, &d, &e);
    printf ("%d\n", a);
    printf ("%ld\n", b);
    printf ("%c\n", c);
    printf ("%f\n", d);
    printf ("%lf\n", e);
    return 0;
}
```

g

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d

Program:

```
#include <stdio.h>
int main(){
    char ch;
    scanf("%c", &ch);
    int a = (int)ch;
    printf("%d\n", a);
    char b = ch - 1;
    char c = ch + 1;
    printf("%c %c \n", b, c);
    return 0;
}
```

Q
d

Program:

```
#include <stdio.h>
int main()
{
    int a;
    int b;
    scanf ("%d\n%d", &a, &b);
    printf ("% .2f", (a*12*2.54)+(b*2.54));
    return 0;
```

Y



ok

Program:

```
# include <stdio.h>
int main()
{
    int a,b;
    scanf("%d %d", &a, &b);
    printf("%d\n", a+b);
    printf("%d\n", a-b);
    printf("%d\n", a*b);
    printf("%d\n", a/b);
    printf("%d\n", a%b);
    return 0;
}
```

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Program:

```
#include <stdio.h>
int main() {
    int a;
    scanf ("%d", &a);
    printf ("Regular price: %.2f\nDiscount: %.2f\nTotal: %.2f\n", a * 3.49, a * 3.49 * 0.6,
           a * 3.49 * 0.4);
    return 0;
}
```

A-

Program:

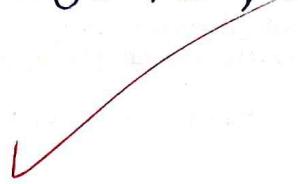
```
#include <stdio.h>
int main() {
    int x,y;
    scanf("%d %d", &x, &y);
    if (y>=x) {
        printf(" YES ");
    }
    else {
        printf(" NO ");
    }
    return 0;
}
```

dr

Program:

```
#include <stdio.h>
int main()
{
    int a,b;
    scanf("%d", &a);
    b=a*(a-1)/2;
    printf("%d", b);
```

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Program:

```
#include <stdio.h>
int main() {
    int a, b, c;
    scanf("%d %d %d", &a, &b, &c);
    if (a > b) {
        x = a;
    }
    if (c > x) {
        x = c;
    }
    printf("%d\n", x);
    return 0;
}
```

do

Program:

```
#include <stdio.h>
int main() {
    int x,y;
    scanf ("%d %d", &x, &y);
    if (x*10 == y*10) {
        printf ("true");
    }
    else {
        printf ("false");
    }
    return 0;
}
```

or

Program:

```
#include <stdio.h>
int main()
{
    int n;
    scanf("%d", &n);
    if(n%2==0)
        if(n>=2 && n<=5)
            printf("Not Weird");
        else
            if(n>=6 && n<=20)
                printf("Weird");
            else
                if(n>20)
                    printf("Not Weird");
                else
                    printf("Weird");
}

```

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Program:

```
#include <stdio.h>
int main() {
    int a, b, c;
    scanf ("%d %d %d", &a, &b, &c);
    if(a*a + b*b == c*c) {
        printf ("yes");
    }
    else if(a*a + c*c == b*b) {
        printf ("yes");
    }
    else if(a*a == b*b + c*c) {
        printf ("yes");
    }
    else {
        printf ("No");
    }
    return 0;
}
```

or

Program:

```

#include <stdio.h>
int main() {
    int n;
    scanf("%d", &n);
    if (n == 3) {
        printf("Triangle"); }
    else if (n == 4) {
        printf("Square"); }
    else if (n == 5) {
        printf("Pentagon"); }
    else if (n == 6) {
        printf("Hexagon"); }
    else if (n == 7) {
        printf("Heptagon"); }
    else if (n == 8) {
        printf("Octagon"); }
    else if (n == 9) {
        printf("Nonagon"); }
    else if (n == 10) {
        printf("Decagon"); }
    else {
        printf("The number of sides is not
supported."); }
}

```

2 3

Program:

```

#include <stdio.h>
int main()
{
    int year;
    scanf("%d", &year);
    if (year % 12 == 8)
        printf("Dragon");
    else if (year % 12 == 9)
        printf("Snake");
    else if (year % 12 == 10)
        printf("Horse");
    else if (year % 12 == 11)
        printf("Sheep");
    else if (year % 12 == 0)
        printf("Monkey");
    else if (year % 12 == 1)
        printf("Rooster");
    else if (year % 12 == 2)
        printf("Dog");
    else if (year % 12 == 3)
        printf("Pig");
    else if (year % 12 == 4)
        printf("Rat");
    else if (year % 12 == 5)
        printf("Ox");
}

```

```
else if (year1%12==6) {  
    printf("Tiger"); }  
else {  
    printf("Horse"); }
```

Y



Program:

```
# include <stdio.h>
int main() {
    int num, sum;
    char alpha;
    scanf ("%c %d", &alpha, &num);
    sum = alpha + num;
    if (sum % 2 == 0) {
        printf ("The square is black.");
    }
    else {
        printf ("The square is white.");
    }
}
```

dr

Program:

```
#include <stdio.h>
int main()
{
    int d, m, y, feb;
    scanf("%d%d%d%d", &d, &m, &y);
    if ((y % 100 == 0 && y % 400 != 0) || (y % 4 == 0))
        feb = 29;
    else
        feb = 28;
    switch (m)
    {
        case 1:
            printf("%d", d);
            break;
        case 2:
            printf("%d", 31 + d);
            break;
        case 3:
            printf("%d", 31 + feb + d);
            break;
        case 4:
            printf("%d", 31 + feb + 31 + d);
            break;
        case 5:
            printf ("%d", 31 + feb + 31 + 30 + d);
            break;
        case 6:
            printf("%d", 31 + feb + 31 + 30 + 31 + d);
            break;
    }
}
```

(Case 7:
 printf ("%1.d", 31+feb+31+30+31+30+d);
 break;

(Case 8:
 printf ("%1.d", 31+feb+31+30+31+30+31+d);
 break;

(Case 9:
 printf ("%1.d", 31+feb+31+30+31+30+31+31+d);
 break;

(Case 10:
 printf ("%1.d", 31+feb+31+30+31+30+31+31+30+d);
 break;

(Case 11:
 printf ("%1.d", 31+feb+31+30+31+30+31+31+30+31+d);
 break;

(Case 12:
 printf ("%1.d", 31+feb+31+30+31+30+31+31+30+31+30+d);
 break;

g

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2

Program:

```
#include <stdio.h>
int a,b; int main () {
    char c;
    int a,b;
    scanf ("%c%d%d", &c, &a, &b);
    switch (c) {
        case 'R':
            printf ("%d", a*b);
            break;
        case 'S':
            printf ("%d", (0.5)*a*b);
            break;
        case 'T':
            printf ("%d", a*b);
            break;
        default:
            printf ("0");
    }
}
```

Program:

```
#include <stdio.h>
int main() {
    int n, day;
    scanf ("%d", &n);
    if (n < 296)
        day = n;
    else
        day = n - 296;
    day %= 10;
    day = day + 1;
    day %= 10;
    switch (day) {
        case 1:
            printf ("Sunday");
            break;
        case 2:
            printf ("Monday");
            break;
        case 3:
            printf ("Tuesday");
            break;
        case 4:
            printf ("Wednesday");
            break;
        case 5:
            printf ("Thursday");
            break;
    }
}
```

case 6:

```
    printf("Funday");  
    break;
```

case 7:

```
    printf("Galvday");  
    break;
```

case 8:

```
    printf("Kryptenday");  
    break;
```

case 9:

```
    printf("Coluday");  
    break;
```

case 10:

```
    printf("Daxamday");  
    break;
```

3 3 ✓

d

Program:

```
#include <stdio.h>
int main() {
    int T, i=0, n, t;
    scanf("%d", &T);
    while (i < T) {
        scanf("%d", &n);
        t = n / 4;
        if (t % 2 == 0 && n % 2 == 0) {
            printf("No\n");
        } else if (t % 2 == 1 && n % 2 == 1) {
            printf("Yes\n");
        } else {
            printf("No\n");
        }
        i++;
    }
}
```

✓

d

Program:-

```
#include <stdio.h>
int main() {
    int a, b, n = 0;
    scanf("%d", &a);
    while (a > 0) {
        b = a % 10;
        if (b == 0 || b == 6 || b == 2 || b == 4) {
            n = n + 1;
        }
        else if (b == 8) {
            n = n + 2;
        }
        a = a / 10;
    }
    printf("%d", n);
}
```

d ✓

Program:

```
#include <stdio.h>
int main() {
    int n, r=0;
    scanf("%d", &n);
    while (n!=0) {
        n=n/2;
        r=r+1;
    }
    printf("%d", r);
```

3



d

Program:

```
#include <stdio.h>
int main() {
    int n, x=0;
    while (scanf("%d", &n) == 1) {
        if (n % 2 == 0) {
            x++;
        }
        printf("%d", x);
    }
    return 0;
}
```

dr

Program:

```

#include <stdio.h>
int main()
{
    int n,x,y=1;
    scanf("%d",&n);
    while (n!=0 && y==1)
    {
        x=n%10;
        n=n/10;
        if (x==2 || x==3 || x==4 || x==7)
        {
            y++;
        }
        else
        {
            printf("false");
            break;
        }
    }
    if (y==4)
        printf("true");
}

```

Program:

```
#include <stdio.h>
int main () {
    long long int n, t, i, nut = 0;
    scanf ("%lld %lld", &n, &t);
    for (i = 1; i <= n; i++) {
        nut = nut + i;
        if (nut == t) {
            nut = nut - 1;
            break;
        }
    }
    printf ("%lld", nut % 1000000007);
}
```

3



dr

Program:

```

#include <stdio.h>
int main() {
    int T, d, i=0, il, i2, o;
    char c;
    scanf("%d", &T);
    while(i < T) {
        scanf("%d", &d);
        il = 0;
        while(il < d) {
            o = 1;
            i2 = 0;
            if(il * 2 == 0) {
                o = 0;
            }
            il++;
            if(i2 * 2 == 0) {
                c = 'B';
            } else {
                c = 'W';
            }
            printf("%c", c);
            i2++;
        }
        i += 1;
        printf("\n");
    }
}

```

Program:

```

#include <stdio.h>
int main() {
    int T, d, i, i1, i2, o, z;
    char c, s;
    scanf("%d", &T);
    for(i=0; i<T; i++) {
        z = (s == 'W') ? 0 : 1;
        o = (i1 % 2 == z) ? 0 : 1;
        for(i2=0; i2 < d, i2++) {
            c = (i2 % 2 == o) ? 'W' : 'B';
            printf("%c", c);
        }
        printf("\n");
    }
    return 0;
}

```

Program:

```

#include <stdio.h>
int main()
{
    int n, v, p3, c, in, i, il, i2, t, ti;
    scanf("%d", &t);
    for(ti=0; ti<t; ti++)
    {
        v=0;
        scanf("%d", &n);
        printf("Case # %d\n", ti+1);
        for(i=0; i<n; i++)
        {
            c=0;
            if(i>0)
            {
                for(il=0; il<i; il++) printf("##");
            }
            for(il=i; il<n; il++) {
                if(i>0) c++;
                printf("%d", ++v);
            }
            if(i==0)
            {
                p3 = v + (v*(v-1))/2 + 1;
            }
            in = in - c;
            p3 = in;
        }
        for(i2=i; i2<n; i2++)
        {
            printf("%d", p3++);
            if(i2==n-1) printf("0");
        }
        printf("\n");
    }
}

```

Program:

```

#include <stdio.h>
int main() {
    int n;
    scanf("%d", &n);
    int x=0, n2=n;
    while (n2!=0) {
        x++;
        n2=n2/10;
    }
    int sum=0;
    int n3=n, n4;
    while (n3!=0) {
        n4=n3%10;
        sum+=pow(n4,x);
        n3=n3/10;
    }
    if (n==sum)
        printf("true");
    else
        printf("false");
}
return 0;

```

Program:

```
#include <stdio.h>
int main()
{
    int n, r, nt=0, i=0;
    scanf("%d", &n);
    do
    {
        nt = n; r = 0;
        while (n != 0)
        {
            r = n % 10 + r * 10;
            n = n / 10;
        }
        n = nt + r;
        i++;
    }
    while (n != n+1 || i == 1);
    printf("%d", n);
    return 0;
}
```

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Program:

```
#include <stdio.h>
int main(){
    int n=1,i=0, nt, co=0, e;
    scanf ("%d", &e);
    while (i<e) {
        nt = n;
        while (nt != 0) {
            co = 0;
            if (nt%10 != 3 && nt%10 != 4) {
                co = 1;
                break;
            }
            nt = nt/10;
        }
        if (co == 0) {
            i++;
        }
        n++;
    }
    printf ("%d", --n);
    return 0;
}
```

Program:

```
#include <stdio.h>
int main () {
    int t;
    scanf ("%d", &t);
    while (t--) {
        int n;
        scanf ("%d", &n);
        int a[n];
        for (int i=0; i<n; i++) {
            scanf ("%d", &a[i]);
        }
        int k;
        scanf ("%d", &k);
        int flag = 0;
        for (int i=0; i<n; i++) {
            for (int j=i+1; j<n; j++) {
                if (a[i]-a[j]==k || a[j]-a[i]
                    ==k) {
                    flag = 1;
                    break;
                }
            }
        }
        if (flag)
            printf ("%d\n", flag);
    }
}
```

~~2~~

~~flag = 1;~~

~~break;~~ 3 3

~~if (flag)~~ break;

~~printf ("%d\n", flag);~~

~~2~~

3

Program:

```
#include <stdio.h>
int main() {
    int t;
    scanf("%d", &t);
    while (t--) {
        int n, c = 0;
        scanf("%d", &n);
        for (int i = 0; i < n; i++) {
            if (i % 2 != 0) c = c + i;
        }
        printf("%d\n", c);
    }
    return 0;
}
```

Program:

```
#include <stdio.h>
int main()
{
    int s1, s2, ans;
    scanf ("%d", &s1);
    int ta [s1];
    for (int i=0; i<s1; i++)
    {
        scanf ("%d", &ta [i]);
    }
    scanf ("%d", &s2);
    int tb [s2];
    for (int i=0; i<s2; i++)
    {
        scanf ("%d", &tb [i]);
    }
    for (int j=0; j<s2; j++)
    {
        ans = 0;
        for (int i=0; i<s1; i++)
        {
            if (tb [j] >= ta [i])
            {
                ans++;
            }
        }
        printf ("%d\n", ans);
    }
}
```

Program:

```

#include <stdio.h>
int main()
{
    int t, m, n, c=0;
    scanf("%d", &t);
    for (int i = 0; i < t; i++)
    {
        c=0;
        scanf("%d\n%d", &m, &n);
        int arr1[n];
        for (int j = 0; j < n; j++)
        {
            scanf("%d", &arr1[j]);
        }
        for (int a = 0; a < n - 1; a++)
        {
            for (int b = a + 1; b < n; b++)
            {
                if (arr1[a] + arr1[b] == m)
                {
                    printf("%d %d\n", a + 1, b + 1);
                    c=1;
                    break;
                }
            }
            if (c == 1) break;
        }
    }
    return 0;
}

```

Program:

```
#include <stdio.h>
int main() {
    int n, m, c, cl=0, oj;
    scanf ("%d", &n);
    int arr [n];
    for (int a=0; a<n; a++) {
        scanf ("%d", &arr [a]);
    }
    scanf ("%d", &m);
    int brr [m], ans [m];
    for (int b=0; b<m; b++) {
        scanf ("%d", &brr [b]);
    }
    for (int j=0; j<m; j++) {
        c=0;
        for (int i=0; i<n; i++) {
            if (arr [i] == brr [j]) {
                c=1;
                arr [i] = -1;
                break;
            }
        }
        if (c==0) {
            ans [cl] = brr [j];
            cl++;
        }
    }
}
```

```
for (int a=0; a<c1; a++) {  
    co = 0;  
    for (int b=0; b<c1; b++) {  
        if (ans[b] < ans[a]) {  
            co++;  
        }  
    }  
    int temp = ans[a];  
    ans[a] = ans[co];  
    ans[co] = temp;  
}  
for (int i=0; i<c1; i++) {  
    printf("%d", ans[i]);  
}  
return 0;
```

✓

Program:

```

#include <stdio.h>
int main()
{
    int t, n, ls, rs, m;
    scanf ("%d", &t);
    for (int i=0; i<t; i++) {
        ls = 0;
        rs = 0;
        scanf ("%d", &n);
        int arr[n];
        for (int j=0; j<n; j++)
            scanf ("%d", &arr[j]);
        m = n/2;
        if (arr[m] == 0) {
            for (m=0; arr[m] == 0 && m<n; m++);
            for (int j=0; j<=m; j++)
                ls = ls + arr[j];
            for (int j=m; j<n; j++)
                rs = rs + arr[j];
            if (ls == rs)
                printf ("%s\n", "YES");
            else
                printf ("%s\n", "NO");
        }
        return 0;
    }
}

```

Program:

```

#include <stdio.h>
int main() {
    int t;
    scanf("%d", &t);
    while (t--) {
        int n, m, d, min, temp;
        scanf("%d %d", &n, &m);
        d = n - m;
        int arr[n];
        for (int i=0; i<n; i++)
            scanf("%d", &arr[i]);
        for (int j=0; j<n; j++) {
            min = j;
            for (int k=j; k<n; k++) {
                if (arr[k] < arr[min])
                    min = k;
            }
            temp = arr[min];
            arr[min] = arr[j];
            arr[j] = temp;
        }
        int maxsum = 0, minsum = 0;
        for (int a=0; a<d; a++)
            minsum += arr[a];
        for (int b=n-1; b>m-1; b--)
            maxsum += arr[b];
    }
}

```

printf ("%d\n", maxsum - minsum);

y

3

Program:

```
#include <stdio.h>
int main()
{
    int n;
    scanf("%d", &n);
    int arr[n];
    for (int i=0; i<n; i++)
        scanf("%d", &arr[i]);
    int max = arr[0];
    for (int i=1; i<n; i++) {
        if (arr[i] > max)
            max = arr[i];
    }
    max++;
    int min = 0;
    for (int a=0; a<n; a++) {
        for (int b=0; b<n; b++) {
            if (arr[b] < arr[min]) {
                min = b;
            }
        }
        printf("%d", min);
        arr[min] = max;
    }
}
```

2

3

3

Program:

```

#include < stdio.h >
int main () {
    int n, min1, min2, temp, flag = 1;
    scanf ("%d", &n);
    int vac [n], pat [n];
    for (int i=0; i<n; i++)
        scanf ("%d", &vac [i]);
    for (int j=0; j<n; j++)
        scanf ("%d", &pat [j]);
    for (int f=0; f<n-1; f++) {
        min1 = j; min2 = j;
        for (int k=j; k<n; k++) {
            if (vac [k] < vac [min1])
                min1 = k;
            if (pat [k] < pat [min2])
                min2 = k;
        }
        temp = vac [min1];
        vac [min1] = vac [f];
        vac [f] = temp;
        temp = pat [min2];
        pat [min2] = pat [f];
        pat [f] = temp;
    }
    for (int i=0; i<n; i++) {
        if (vac [i] <= pat [i]) {
            flag = 0;
            break;
        }
    }
}

```

```
if (flag == 1)  
printf ("Yes");  
else  
printf ("No");
```

3

Program:

```
#include<stdio.h>
int main()
{
    int n, count = 0;
    scanf("%d", &n);
    int arr[n];
    for (int i=0; i<n; i++)
        scanf("%d", &arr[i]);
    for (int i=0; i<n-1; i++)
        for (int j=i+1; j<n; j++)
            if (arr[i] ^ arr[j] == 0)
                count++;
}
printf("%d", count);
```

2

1

Program:

```

#include <stdio.h>
int main() {
    int arr[3][3];
    int sum1 = 0, sum2 = 0;
    for (int i=0; i<3; i++) {
        for (int j=0; j<3; j++) {
            scanf ("%d", &arr[i][j]);
        }
    }
    sum1 = arr[0][0] + arr[0][1] + arr[0][2] +
           arr[1][0] + arr[1][1] + arr[1][2] +
           arr[2][0] + arr[2][1] + arr[2][2];
    sum2 = arr[0][0] + arr[1][0] + arr[2][0] +
           arr[0][1] + arr[1][1] + arr[2][1] +
           arr[0][2] + arr[1][2] + arr[2][2];
    printf ("%d\n", sum1);
    printf ("%d\n", sum2);
    return 0;
}

```

Program:

```

#include <stdio.h>
int main() {
    int i, j, n, x1, x2, y1, y2, t = 0;
    long long total = 0;
    int arr[100][100] = {0};
    scanf("%d\n", &n);
    while (n--) {
        scanf("%d %d %d %d %d", &x1, &y1, &x2, &y2, &t);
        for (i = x1; i <= x2; i++) {
            for (j = y1; j <= y2; j++) {
                if (arr[i][j] == 0)
                    arr[i][j] += t;
                else if (arr[i][j] > 0)
                    arr[i][j] = (-1) * (arr[i][j] + t);
                else if (arr[i][j] < 0)
                    arr[i][j] -= t;
            }
        }
        for (i = 1; i < 100; i++) {
            for (j = 1; j < 100; j++) {
                if (arr[i][j] < 0)
                    total += arr[i][j];
            }
        }
        printf("%d\n", (-1) * total);
    }
    return 0;
}

```

Program:

```

#include <stdio.h>
#include <stdlib.h>
typedef struct {
    int gender;
    int talent_level;
} candidate;
int compare (const void *a, const void *b) {
    candidate * cand_1 = (candidate *)a;
    candidate * cand_2 = (candidate *)b;
    return cand_2->talent_level - cand_1->talent_level;
}
int main() {
    int n;
    scanf ("%d", &n);
    Candidate candidates [n];
    for (int i=0; i<n; i++) {
        scanf ("%d %d", &candidates[i].gender,
              &candidates[i].talent_level);
    }
    qsort (candidates, n, sizeof (Candidate), compare);
    for (int i=0; i<n; i++) {
        if (candidates[i].gender == 0)
            printf ("%d", candidates[i].talent_level);
    }
}

```

```
for (int i=0; i<n; i++) {  
    if (candidates[i].gender == 1) {  
        printf("%d", candidates[i].talent_level);  
    }  
    printf("\n");  
}  
return 0;  
}
```

Program:

```

#include <stdio.h>
int main() {
    char str1[10], str2[10], t;
    int i=0, j=0;
    int count1=0, count2=0;
    scanf ("%d", &str1);
    scanf ("%d", &str2);
    while (str1[i] != '\0') {
        count1++;
        i++;
    }
    while (str2[j] != '\0') {
        count2++;
        j++;
    }
    printf ("%d %d\n", count1, count2);
    printf ("%s %s\n", str1, str2);
    t = str1[0];
    str1[0] = str2[0];
    str2[0] = t;
    printf ("%s %s", str1, str2);
    return 0;
}

```

Program:-

```
#include <stdio.h>
int main() {
    char s[1000];
    scanf("%[^\\n]s", s);
    for (int i=0; s[i]!='\\0'; i++) {
        if (s[i] == ' ')
            printf("%c", s[i]);
        else
            printf("\\n");
    }
    return 0;
}
```

h

Program:

```
#include <stdio.h>
int main () {
    char str[1000];
    scanf ("%s", str);
    int hash[10] = {0,0,0,0,0,0,0,0,0,0};
    int temp;
    for (int i=0; str[i]!='\0'; i++) {
        temp = str[i] - '0';
        if (temp <= 9 && temp >= 0) {
            hash[temp]++;
        }
    }
    for (int i=0; i<=9; i++) {
        printf ("%d ", hash[i]);
    }
    return 0;
}
```

✓

Program:

```

#include <stdio.h>
int main() {
    int t;
    scanf("%d", &t);
    while (t--) {
        char str[100000];
        int count = 0;
        scanf("%s", str);
        for (int i = 0; str[i] != '\0'; i++) {
            char c = str[i];
            if ((c == 'a') || (c == 'e') || (c == 'i') || (c == 'o') || (c == 'u') ||
                (c == 'A') || (c == 'E') || (c == 'I') || (c == 'O') || (c == 'U')) {
                count++;
            }
        }
        printf("%d\n", count);
    }
    return 0;
}

```

✓

2

Program:

```

#include <stdio.h>
#include <string.h>
int main() {
    int t;
    scanf("%d", &t);
    while(t--) {
        int flag = 1;
        char s[100000];
        scanf("%s", s);
        int k = strlen(s);
        if(k == 10) {
            for (int i = 0; i < 10; i++) {
                if (s[i] == 'o') {
                    flag = 0;
                    break;
                }
                if (s[i] < 'o' || s[i] > 'q') {
                    flag = 0;
                    break;
                }
            }
            if (flag == 0) {
                printf("YES\n");
            } else {
                printf("NO\n");
            }
        }
        return 0;
    }
}

```

Program:

```

#include <stdio.h>
#include <string.h>
int main() {
    char str1[1000000], str2[1000000];
    int flag = 1;
    scanf("%s", str1);
    scanf("%s", str2);
    int a = strlen(str1);
    int b = strlen(str2);
    if (a == b) {
        for (int i = a - 1, j = 0; i >= 0; i--) {
            while (str1[i] != str2[j]) {
                for (int j = 0; j <= i; j++) {
                    if (str1[j] < 'z') {
                        str1[j]++;
                    }
                }
            }
            else {
                flag = 0;
                break;
            }
            if (flag == 0) break;
        }
        if (flag == 0) printf("NO");
        else printf("YES");
        return 0;
    }
}

```

Program:

```

#include <stdio.h>
#include <string.h>
int main()
{
    int n;
    scanf("%d", &n);
    char res[n][2];
    int rate[n];
    for (int i=0; i<n; i++) {
        scanf("%s", res[i]);
        scanf("%d", &rate[i]);
    }
    int max = rate[0];
    char ans[20];
    strcpy(ans, res[0]);
    for (int i=1; i<n; i++) {
        if (rate[i] > max) {
            max = rate[i];
            strcpy(ans, res[i]);
        }
        else if (rate[i] == max) {
            if (strcmp(res[i], ans) < 0)
                strcpy(ans, res[i]);
        }
    }
    printf("%s", ans);
    return 0;
}

```

Program:

```

#include <stdio.h>
#include <string.h>
int main() {
    int n, flag = 0;
    char temp;
    scanf("%d", &n);
    char words[n][14];
    for (int i=0; i<n; i++) {
        scanf("%s", words[i]);
        char reverse[14];
        for (int j=0; j<n-1; j++) {
            strcpy(reverse, words[j]);
            int size = strlen(reverse);
            for (int k=0; k<size/2; k++) {
                temp = reverse[k];
                reverse[k] = reverse[size-k-1];
                reverse[size-k-1] = temp;
            }
            if (strcmp(reverse, words[j]) == 0) {
                flag = 1;
                break;
            }
        }
        if (flag == 1) break;
        int len = strlen(reverse);
        printf("%d %c", temp, reverse[len/2]);
    }
    return 0;
}

```