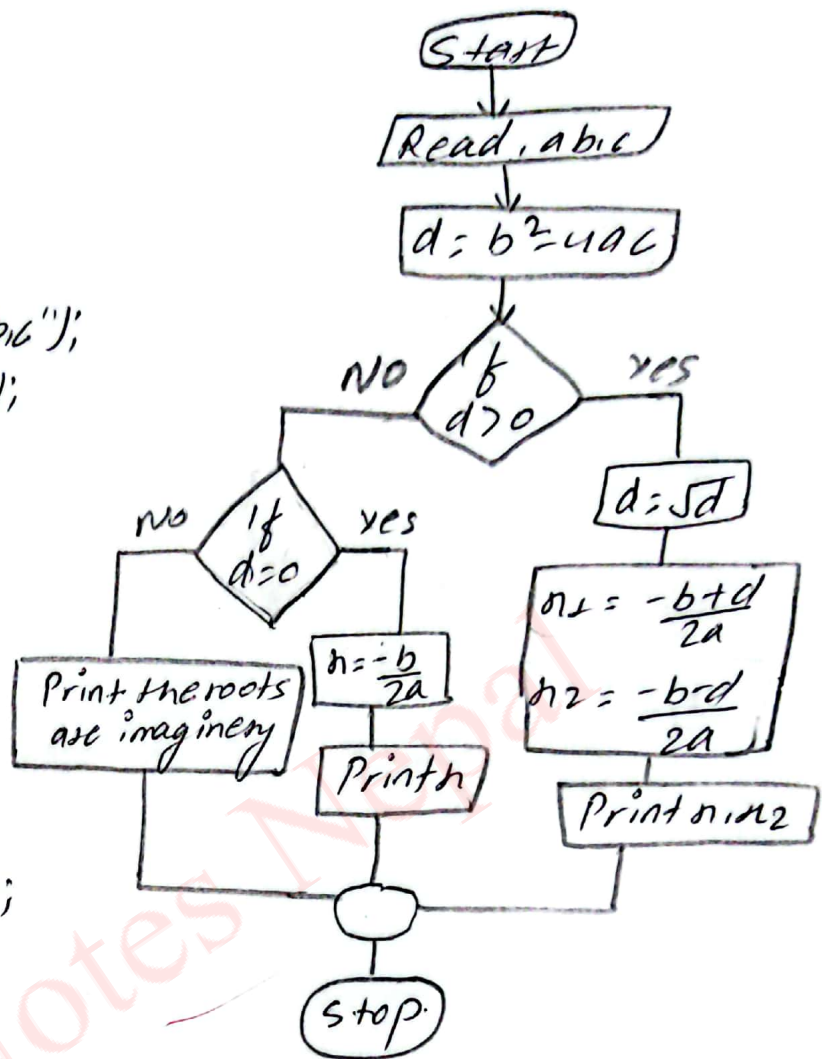


① WFP to solve quadratic equation. ($x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$)

→

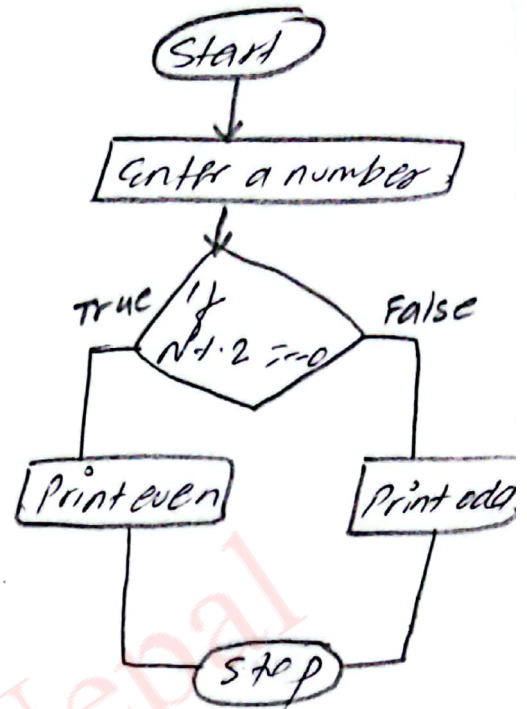
```
#include <stdio.h>
#include <math.h>
void main()
{
    float a, b, c, d, r1, r2, r;
    printf("Enter value of a, b, c");
    scanf("%f%f%f", &a, &b, &c);
    d = d * d - 4 * a * c;
    if (d > 0)
    {
        d = sqrt(d);
        r1 = (-b + d) / (2 * a);
        r2 = (-b - d) / (2 * a);
        printf("r1 = %f", r1);
        printf("r2 = %f", r2);
    }
    else if (d == 0)
    {
        r = -b / (2 * a);
        printf("r = %f", r);
    }
    else
    {
        printf("The roots are imaginary");
    }
}
```



② WAP to read number and check whatever the number is even or odd.

→

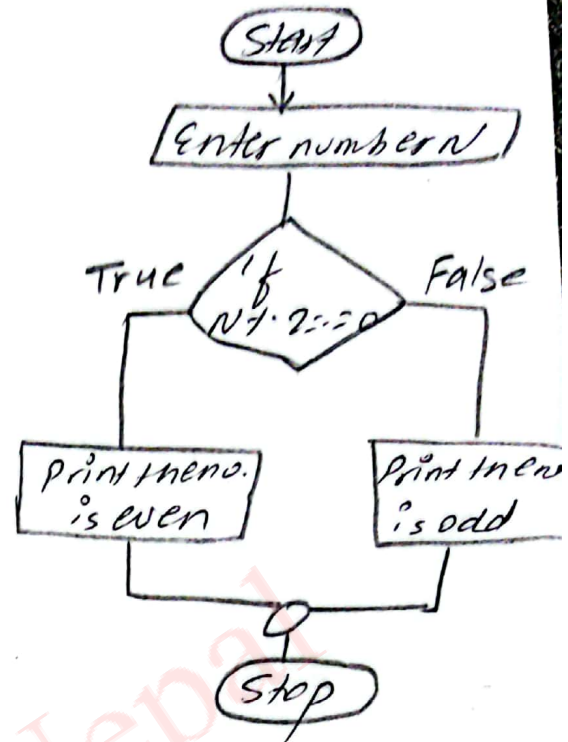
```
#include <stdio.h>
#include <conio.h>
void main()
{
    int N;
    printf("Enter the value of N");
    scanf("%d", &N);
    if (N % 2 == 0)
    {
        printf("The number is even");
    }
    else
    {
        printf("The number is odd");
    }
    getch();
}
```



③ WFP to read number and check the number is even or odd.

→

```
#include <stdio.h>
#include <conio.h>
void main()
{
    int N;
    printf("Enter the number N");
    scanf("%d", &N);
    if (N % 2 == 0)
    {
        printf("The number is even");
    }
    else
    {
        printf("The number is odd");
    }
}
```



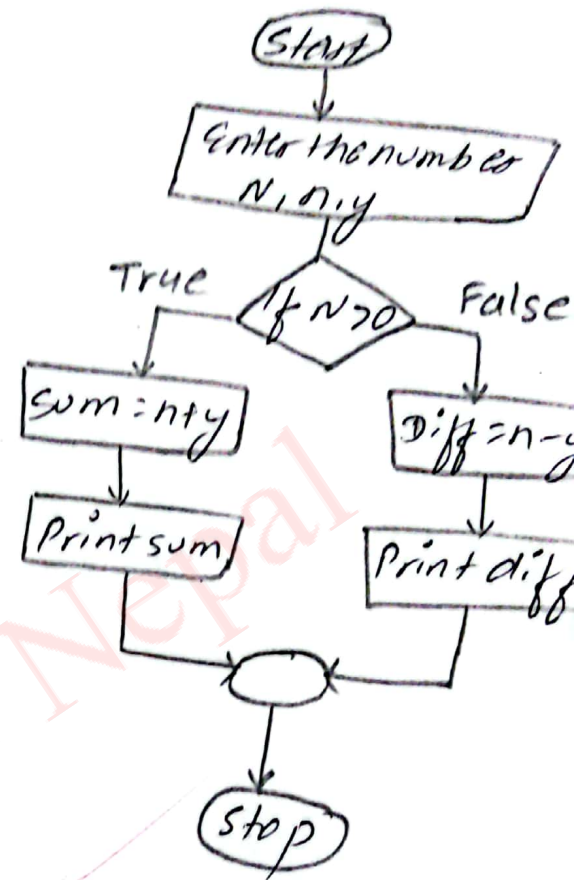
WPP to read a number if the number is greater than 0 find sum of n by else find the difference of n by.

→

```

#include <stdio.h>
void main()
{
    int n, y, n1;
    printf("Enter the number n1:");
    scanf("%d", &n1);
    if (n1 > 0)
    {
        printf("n1 = %d", n1);
    }
    else
    {
        printf("n1 = %d", n1 - y);
    }
}

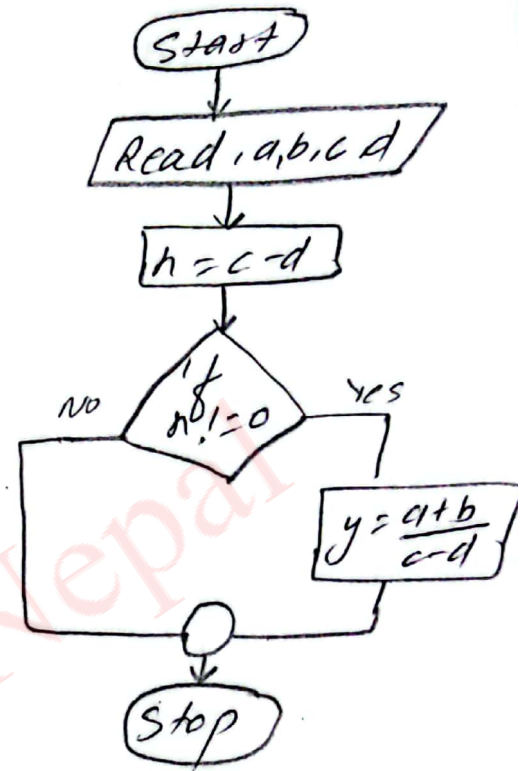
```



WFP to read value of a, b, c, d and from the terminal and evaluate the ratio of (a+b) to (c-d) and print the result, if (c-d) is not equal to 0.

→

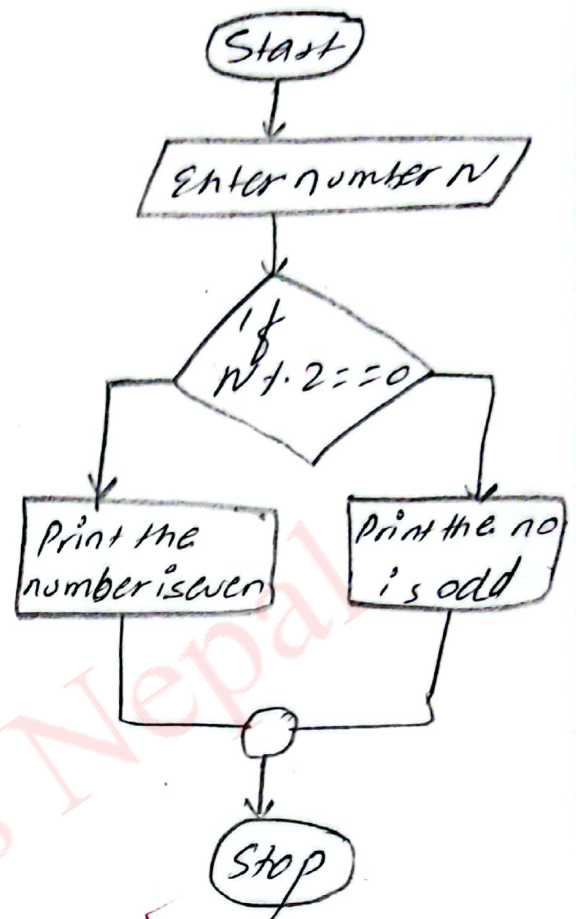
```
#include <stdio.h>
#include <conio.h>
void main()
{
    int a, b, c, d, x, y;
    printf("Enter the value of a, b, c, d");
    scanf("%d %d %d %d", &a, &b, &c, &d);
    if (c-d != 0)
    {
        y = (a+b)/(c-d);
        printf("y = %d", y);
    }
    getch();
}
```



WFP to read number and check the number is even or odd

→

```
#include <stdio.h>
#include <conio.h>
void main()
{
    int n;
    printf("Enter the val of N");
    scanf("%d", &n);
    if (N % 2 == 0)
    {
        printf("The number is even");
    }
    else
    {
        printf("The number is odd");
    }
    getch();
}
```



A company decided to distribute from the criteria for distributing bonus as follows:-

- (i) Employee having more than 5 year experience & salary more than 25000 will get 20% bonus of their salary.
- (ii) Employee having more than 5 year experience & salary then 5 years experience & salary less than 25000 will get 15% bonus salary.
- (iii) Employee having less than 5 years experience will not get bonus.

→ WFP to calculate total amount received by employee.

```
#include <stdio.h>
```

```
#include <conio.h>
```

```
void main()
```

```
{
```

```
float salary, bonus
```

```
int year
```

```
printf("Enter year & salary");
```

```
scanf("%d %f", &year, &salary);
```

```
if (year > 5)
```

```
{
```

```
if (salary > 25000)
```

```
{
```

```
bonus = salary * 0.2;
```

```
salary = salary + bonus;
```

```
}
```

```
else
```

```
{
```

```
bonus = salary * 0.15;
```

```
salary = salary + bonus;
```

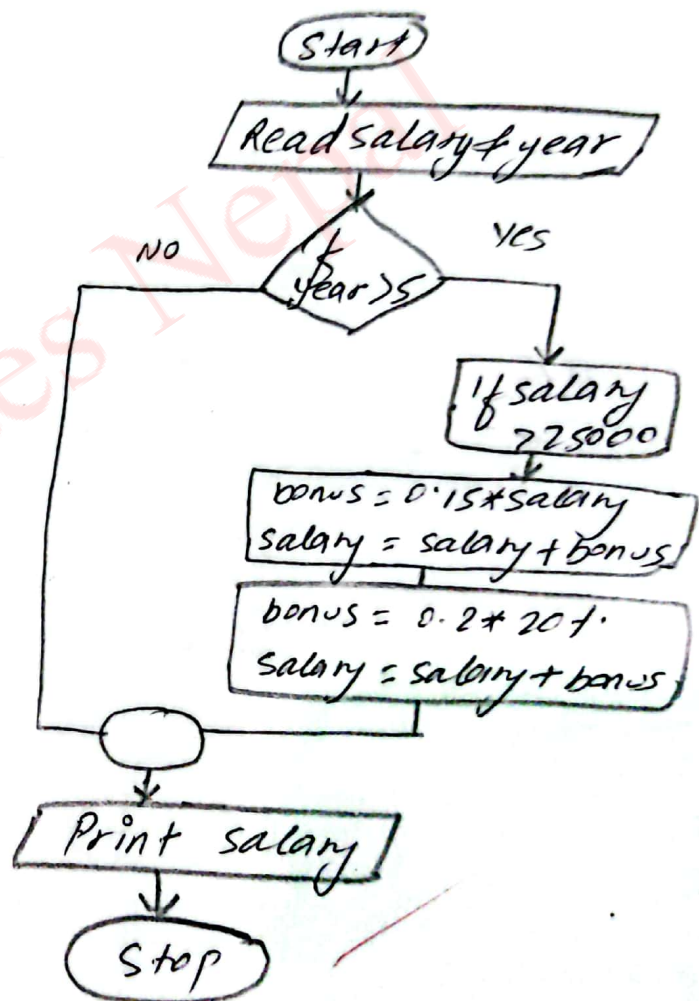
```
}
```

```
}
```

```
printf("Salary = %f", salary);
```

```
getch();
```

```
}
```



An electric power company charge it's domestic consumer as follow:

Consumption unit

0-200

201-400

401-600

601 & above

Rate

Rs 0.50 per unit

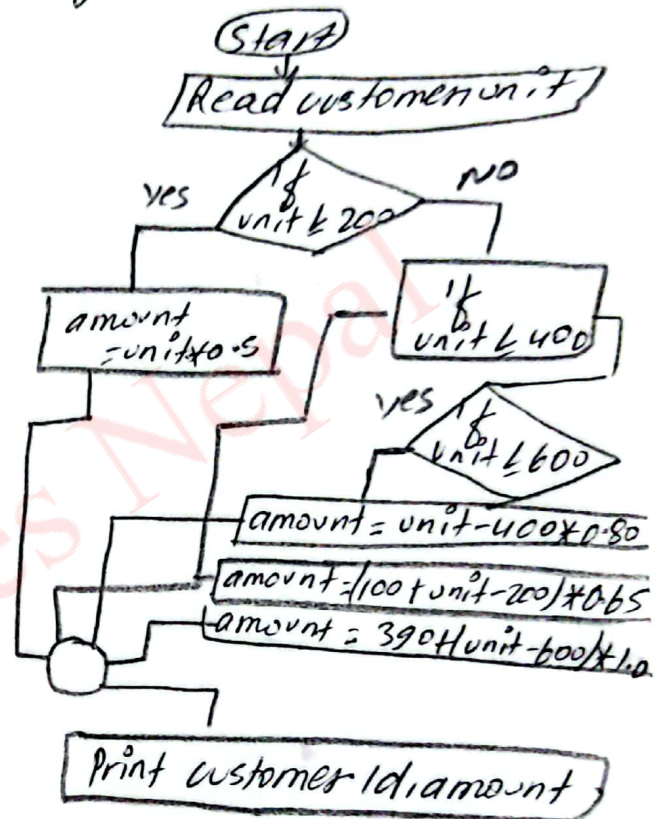
Rs 100 plus Rs 0.65 per excess 200

Rs 230 plus Rs 0.80 per unit of 200

Rs 390 plus Rs 0.65 per unit of 200

WFP that reads the customers number & power consumed & print the amount to be paid by customer.

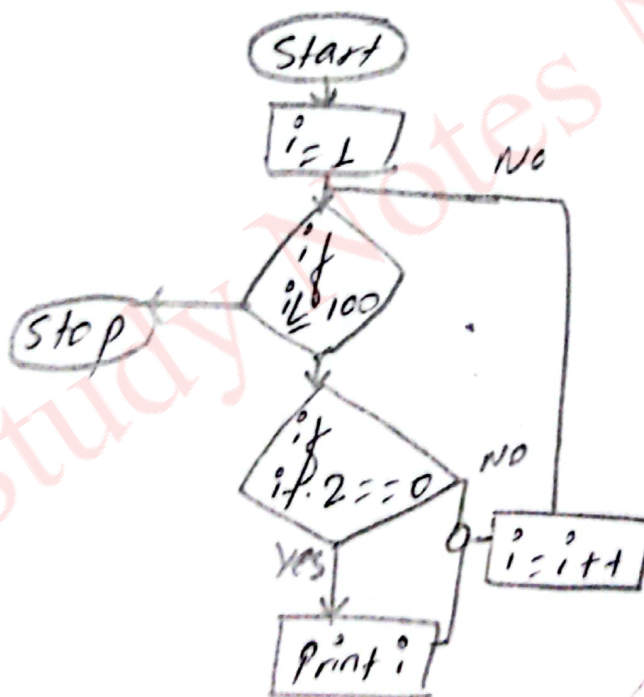
```
#include <stdio.h>
void main()
{
    float salary, bonus;
    int year;
    printf("Enter year & salary");
    scanf("%d %d", &year, &salary);
    if (unit <= 200)
    {
        amount = unit * 0.5;
    }
    else if
    {
        if (unit <= 400)
        {
            amount = (100 + unit - 200) * 0.65;
        }
        else if (unit <= 600)
        {
            amount = 390 + (unit - 600) * 1.00;
        }
    }
    printf("customer id: %d / amount: %f", customer id, amount);
}
```



WFP to print even number from 1 to 100.

—)

```
#include <stdio.h>
void main()
{
    int i;
    for(i=1; i<=100; i++)
    {
        if(i%2==0)
        {
            printf("%d\n", i);
        }
    }
}
```



WFP to print following table:-

$$5 \times 1 = 5$$

$$5 \times 2 = 10$$

$$5 \times 3 = 15$$

!

$$5 \times 10 = 50$$

—>

```
#include <stdio.h>
```

```
void main()
```

```
{
```

```
int i, n;
```

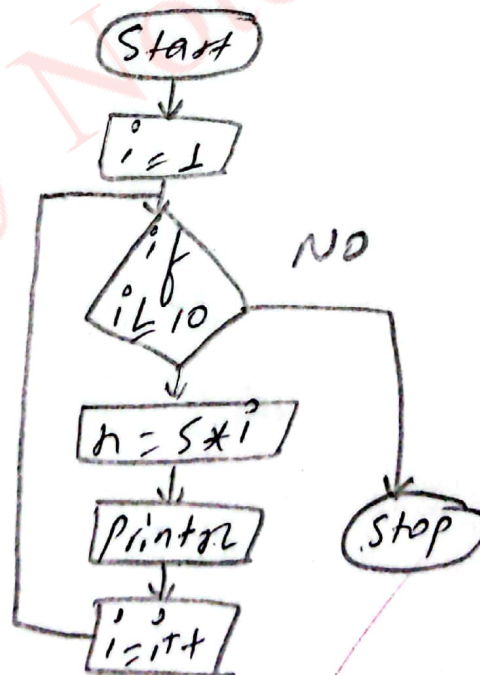
```
for (i = 1; i <= 10; i++);
```

```
{
```

```
n = 5 * i;
```

```
printf("t.d * t.d | t = | t.d | n | n |");
```

```
}
```

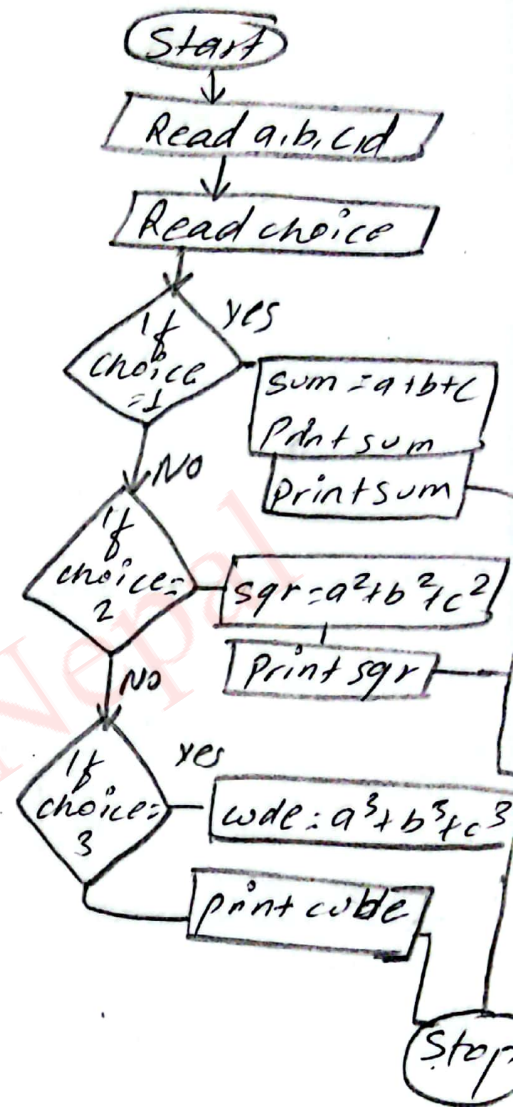


WFP to perform following using switch statement.

- 1) $sum = a + b + c$ ② $sqr = a^2 + b^2 + c^2$ ③ $cube = a^3 + b^3 + c^3$

→

```
#include <stdio.h>
#include <conio.h>
void main()
{
    int a, b, c, choice, sum, sqr, cube;
    printf("Enter, a, b, c");
    scanf("%d %d %d", &a, &b, &c);
    printf("Enter your choice");
    scanf("%d", &choice);
    switch(choice)
    {
        case 1:
            sum = a + b + c;
            printf("sum = %d", sum);
            break;
        case 2:
            sqr = a * a + b * b + c * c;
            printf("Print sqr");
            break;
        case 3:
            cube = pow(a, 3) + pow(b, 3) + pow(c, 3);
            printf("Print cube");
            break;
        case 4:
            printf("Enter number between 1 & 3");
            getch();
    }
}
```



WFP to perform travel program using switch statement.

't' → travel by train

'b' → travel by bus

'p' → travel by plane.

→

```
#include <stdio.h>
```

```
main()
```

```
{
```

```
char choice;
```

```
printf("Enter your choice");
```

```
scanf("%d", &choice);
```

```
switch(choice);
```

```
case 't';
```

```
{
```

```
printf("travel by bus");
```

```
}
```

```
case 'b'
```

```
{
```

```
printf("Travel by bus");
```

```
break;
```

```
}
```

```
case 'p';
```

```
{
```

```
printf("Travel by plane");
```

```
break;
```

```
}
```

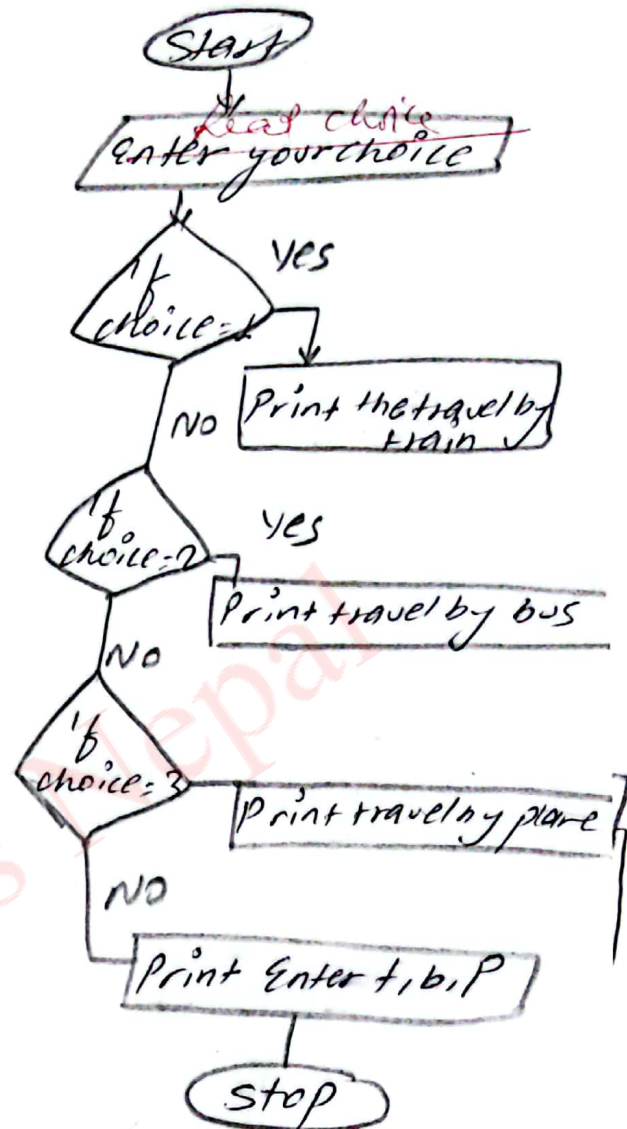
```
case '@':
```

```
{
```

```
printf("Please enter valid character");
```

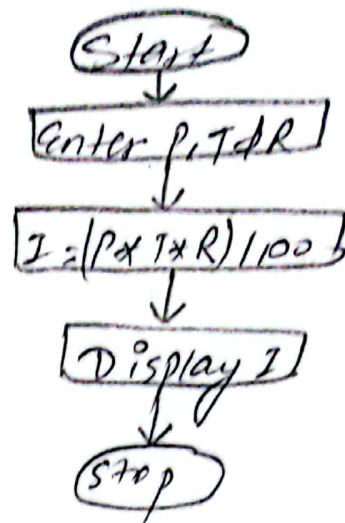
```
break;
```

```
}
```



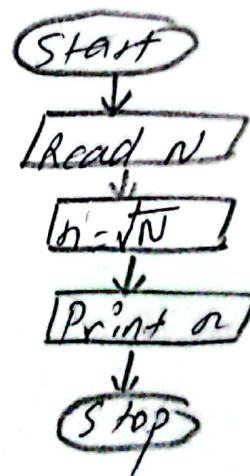
→ WFP to find simple interest.

```
#include <stdio.h>
void main()
{
    int P, T, R, I;
    printf("Enter value of P, T & R");
    scanf("%d %d %d", &P, &T, &R);
    I = P * T * R / 100;
    printf("The simple interest is %d", I);
}
```



WFP to find square root of given number.

```
#include <stdio.h>
void main()
{
    int N, n;
    printf("Enter the value of N");
    scanf("%d", &N);
    n = pow(N, 0.5);
    printf("The power of N is %d", n);
    getch();
}
```



WFP to read three number & test where the number is armstrong or not.

→

```
#include <stdio.h>
```

```
main ()
```

```
{
```

```
int a, b, c, num, copy of num, sum = 0;
```

```
printf("Enter the number a, b, c");
```

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

```
copy of number = num;
```

```
while (num != 0)
```

```
{
```

```
rem = num % 10;
```

```
sum = sum + rem * rem * rem;
```

```
num = num / 10;
```

```
}
```

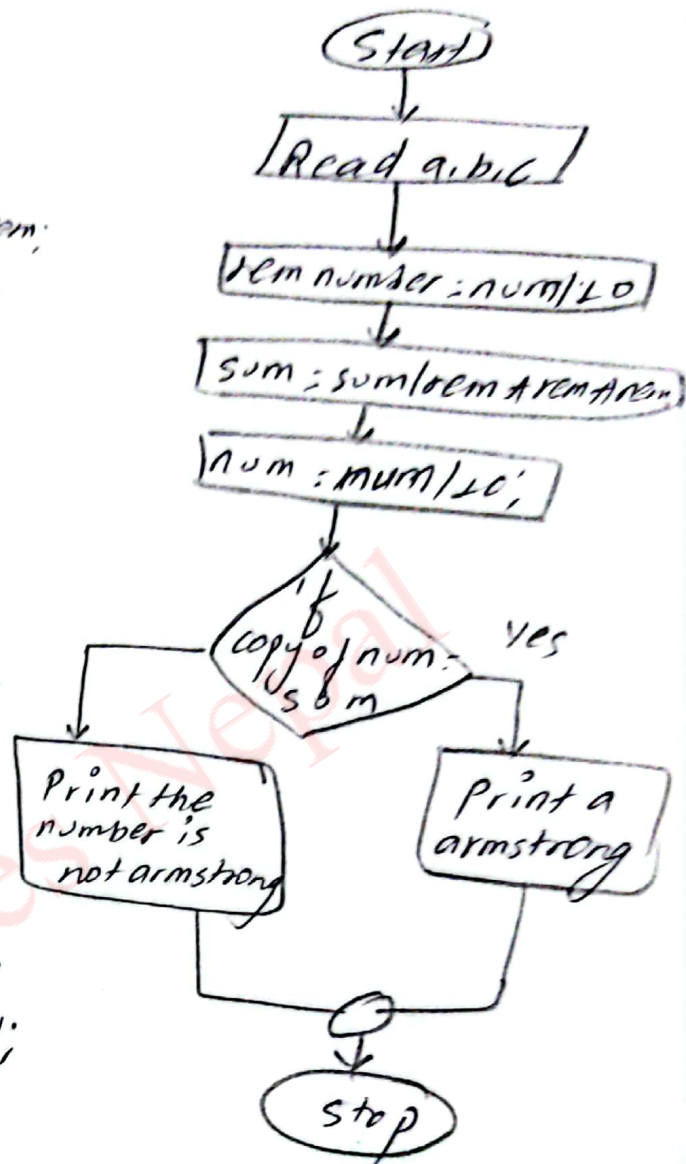
```
if (copy of num == sum)
```

```
printf("%d is an armstrong number", copy of number);
```

```
else
```

```
printf("%d is not armstrong number", copy of num);
```

```
}
```



WAP area of triangle using while loop.

→

```
#include <stdio.h>
```

```
main()
```

```
#include <math.h>
```

```
main()
```

```
{  
    int sum = 0, a, b, c, i = 1, n, area;  
    float s;
```

```
    if (i <= n)
```

```
        printf("Enter value of a, b, c");  
        scanf("%d %d %d", &a, &b, &c);  
        s = (a + b + c) / 2;
```

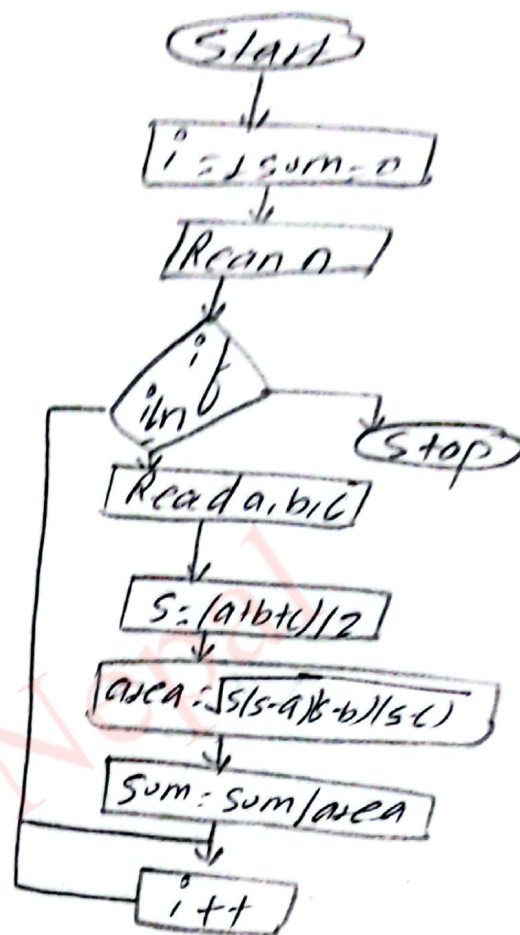
```
        area = sqrt(s * (s - a) * (s - b) * (s - c));
```

```
        sum = sum + area;
```

```
        i = i + 1;
```

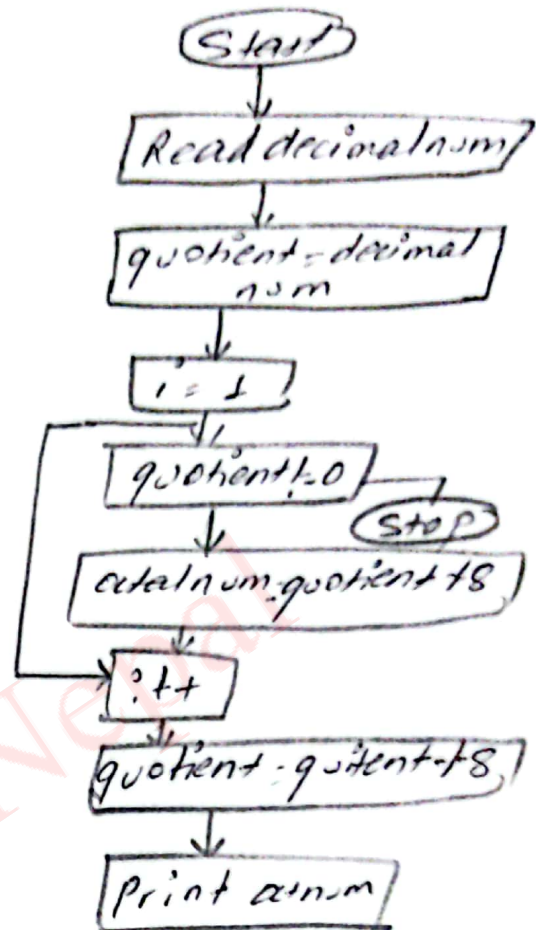
```
        printf("Print area: %d", area);
```

```
}
```



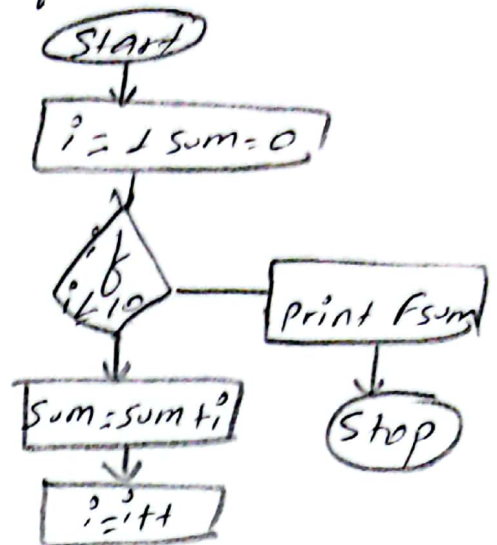
WFP to read a number then convert into octal number
→

```
#include <stdio.h>
main()
{
    int, octnum, decimal num, remainder
    quotient;
    printf("Enter decimal num");
    scanf("%d", &decimal num);
    quotient = decimal num;
    while(quotient != 0);
    {
        octal number = quotient % 8;
        (i = i + 1);
        quotient = quotient / 8;
    }
    printf("Equivalent octal value of decimal num is %d", decimal num);
    {
        printf("%d", octal number);
    }
    getch
}
```



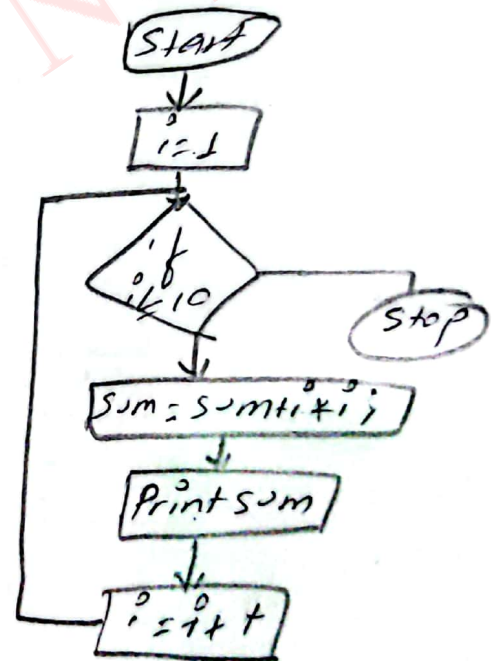
WFP to find sum of all natural number from 1 to 10

→ #include <stdio.h>
 main()
 {
 int i, sum = 0;
 for (i = 1; i <= 10; i++)
 {
 sum = (sum + i);
 printf("%d", sum);
 }
 }



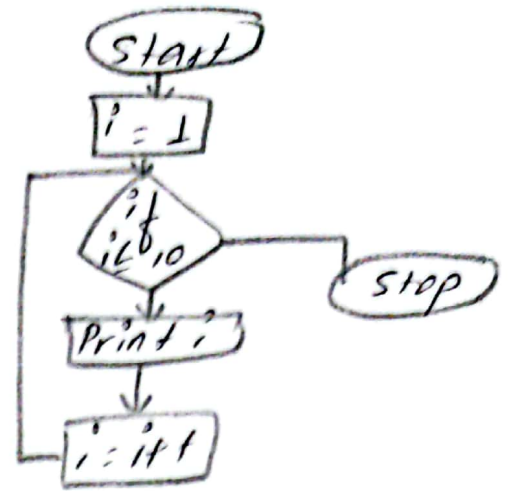
WFP to print the following $1^2 + 2^2 + 3^2 + 4^2 + \dots + 10^2$.

→ #include <stdio.h>
 main()
 {
 int i = 1, sum = 0;
 for (i = 1; i <= 10; i++)
 {
 sum = sum + i * i;
 }
 printf("the sum is %d", sum);
 }



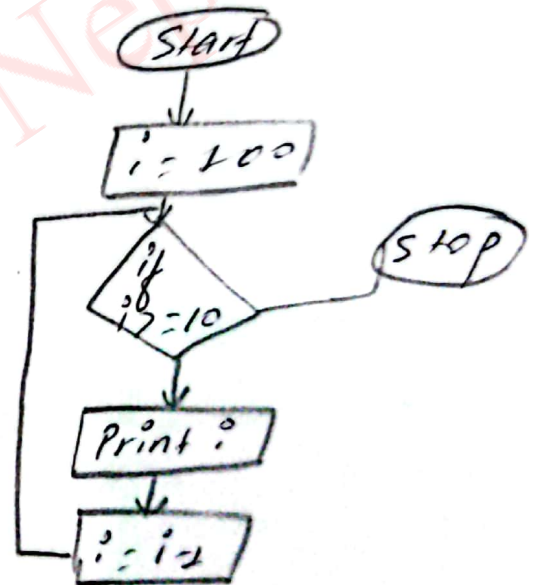
WFP to print all natural from 1 to 10.

```
→ #include <stdio.h>
main ()
{
    for (i = 1, i <= 10; i = i + 1)
    {
        printf("%d\n", i);
    }
}
```



WFP to print all natural number from 100 to 1.

```
→ #include <stdio.h>
void main ()
{
    int i;
    clrscr ();
    for (i = 100, i >= 1; i = i - 1)
    {
        printf("%d\n", i);
    }
}
```



Display only even number from 2 to $n-2$.

→ #include <stdio.h>

main()

{

int $N, i = 2$;

printf("Enter the value of N");

scanf("%d", & N);

while($i \leq n-2$)

{

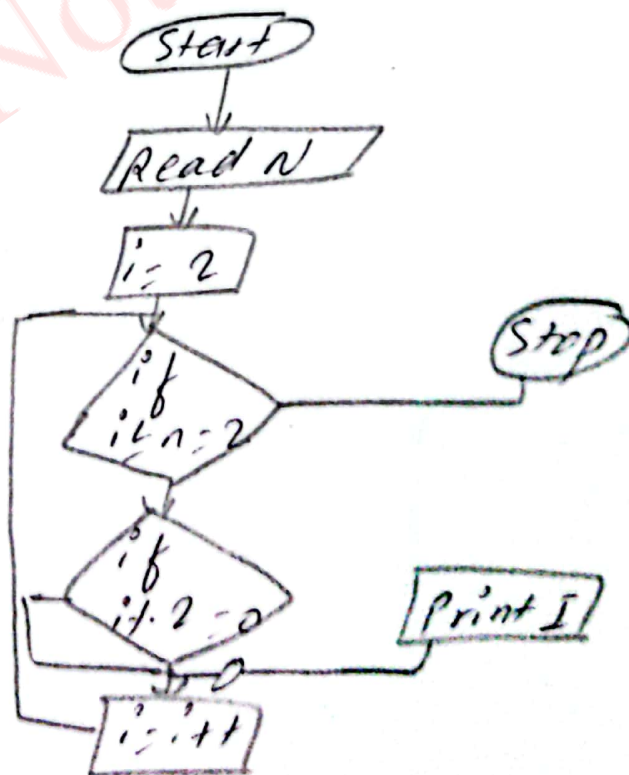
if ($i \% 2 == 0$)

{

printf("Print the value of I", I);

$i = i + 1$;

}

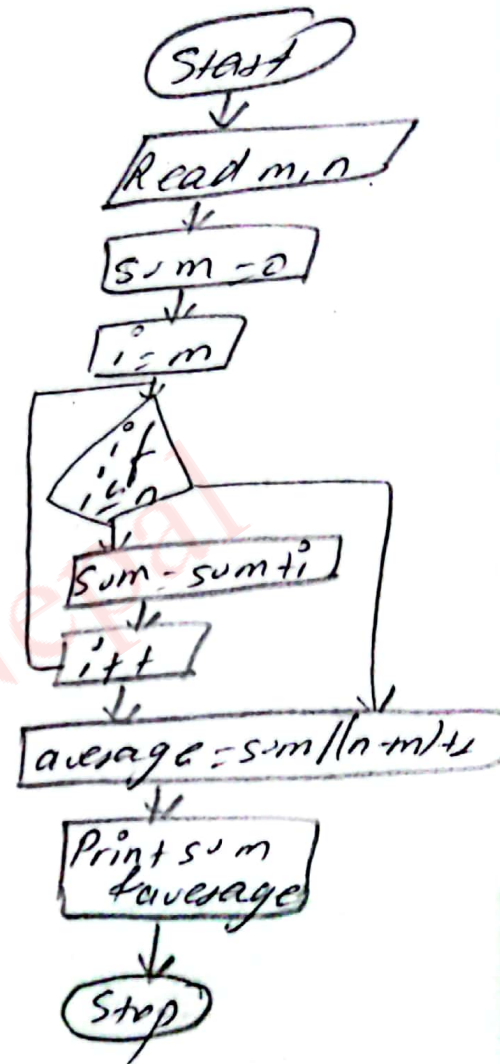


WAP to display sum & average from m to n using while loop where m,n are number entered by user keyboard.

→

```

#include <stdio.h>
main()
{
    int, m, n, i, sum = 0;
    float a;
    printf("Enter the value of m, n");
    scanf("%d %d", &m, &n);
    i = m;
    while(i <= n);
    {
        sum = sum + i;
        i = i + 1;
    }
    a = sum / (n - m + 1);
    printf("Print sum", sum);
    printf("Print average t.f", a)
}
    
```

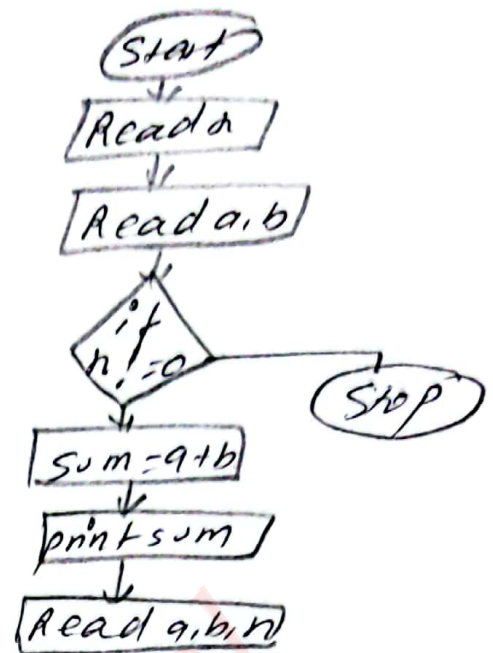


WFP to add two numbers & display their sum the program must ask user not add till user wants

```

#include <stdio.h>
main()
{
    int n, a, b;
    printf("Enter value of a, b");
    scanf("%d %d", &a, &b);
    while(n != 0)
    {
        sum = a + b;
        printf("The sum is %d", sum);
    }
}

```

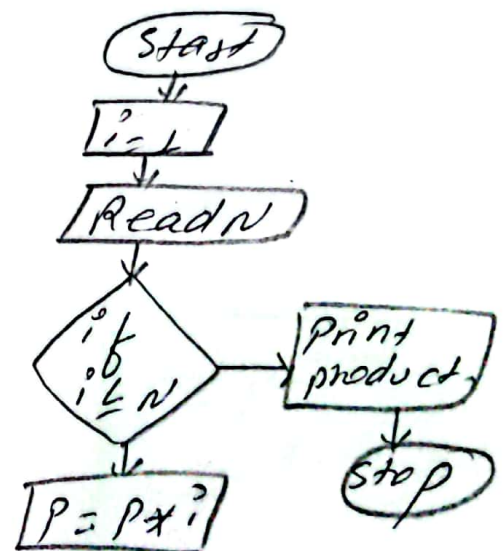


WFP to calculate factorial of number using loop.

```

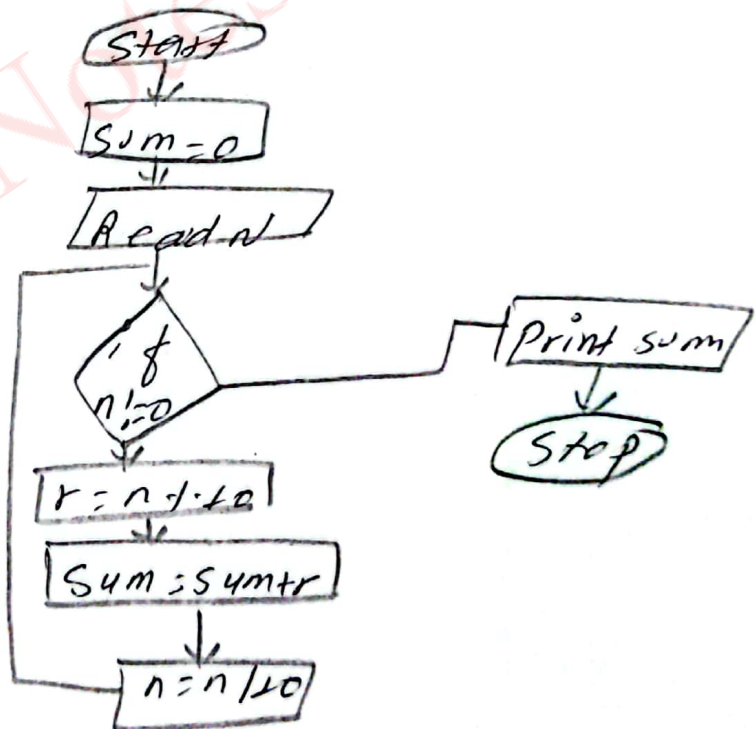
#include <stdio.h>
main()
{
    int i = 1, N, P;
    printf("Enter the value of N");
    scanf("%d", &N);
    while(i <= N)
    {
        P = P * i;
        i++;
    }
    printf("Print the value of p: %d", P);
}

```



WFP to read a number & find its individual sum.

```
→ #include <stdio.h>
   main()
   {
       int N, sum = 0, r;
       printf("Enter the value of N");
       scanf("%d", &N);
       while(N != 0)
       {
           r = N % 10;
           sum = sum + r;
           N = N / 10;
       }
       printf("Sum is %d", sum);
   }
```



WFP to read a number then convert into octal number.

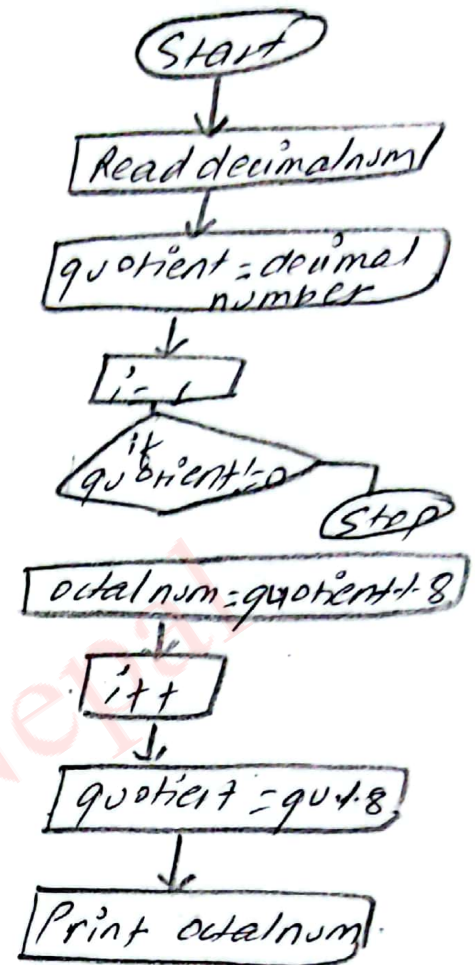
```
→ #include <stdio.h>
   main()
   {
       int, oct, decimal, remainder
       quotient;

       printf("Enter decimal num");
       scanf("%d", &decimal num);
       quotient = decimal num;

       while (quotient != 0)
       {
           octal number = quotient % 8;
           (i = i + 1);
           quotient = quotient / 8;
       }

       printf("Equivalent octal value of decimal num %d", decimal num);

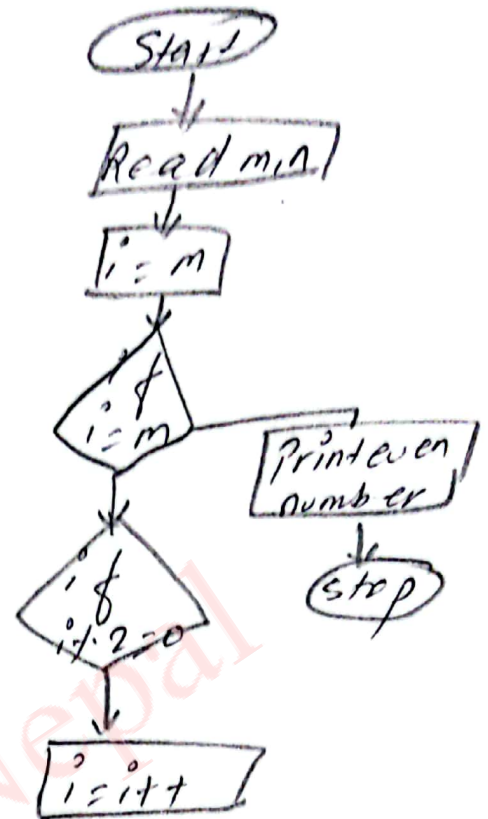
       {
           printf("%d", octal number);
       }
   }
```



WFP to print all even number from m to n using do while loop.

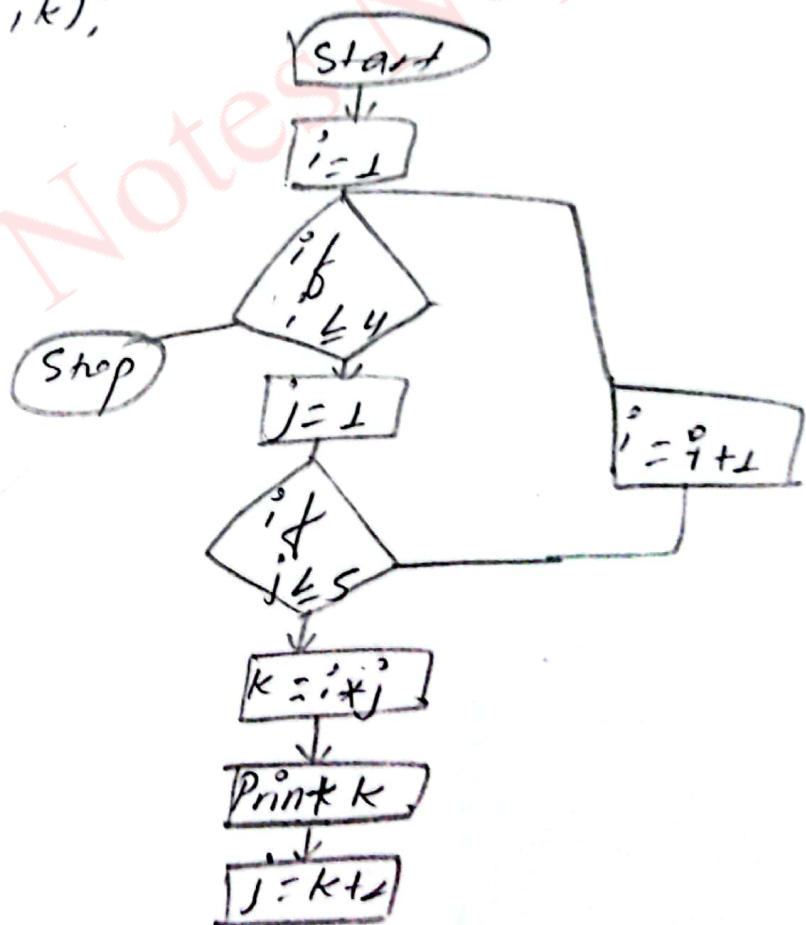
→

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



→ WFP to print following table using nested loop.

```
#include <stdio.h>
main()
{
    int i, j, k;
    for (j = 1; j <= 4; i = i + 1)
    {
        for (j = 1; j <= 5; i = i + 1)
        {
            k = i * j;
        }
        printf("%d\t", k);
    }
}
```



WFP to print following table using nested loop.

```

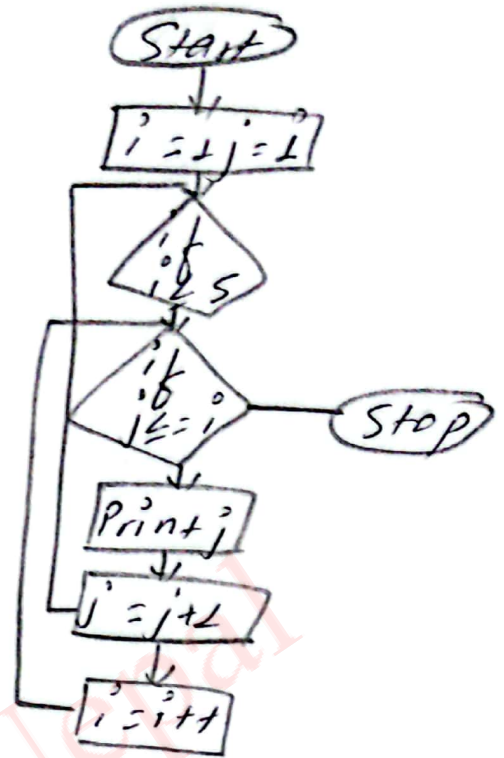
1
2 2
3 3 3
4 4 4 4
5 5 5 5 5

```

```

#include <stdio.h>
main()
{
    int i, j;
    for (i = 1; i <= 5; i++)
    {
        for (j = 1; j <= i; j++)
        {
            printf("%d\t", j);
        }
        printf("\n");
    }
}

```



WFP to print the following table using nested loop.

```

1
1 1
1 1 1
1 1 1 1
1 1 1 1 1

```

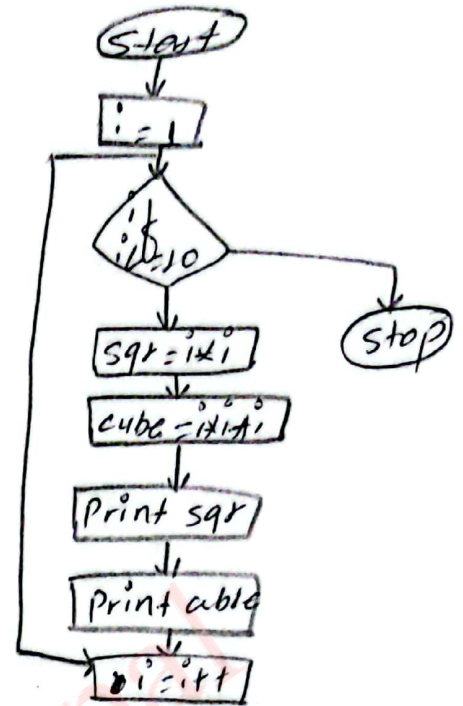
```

#include <stdio.h>
main()
{
    int i, j;
    for (i = 1; i <= 5; i++)
    {
        for (j = 1; j <= i; j++)
        {
            printf("%d\t", 1);
        }
    }
}

```

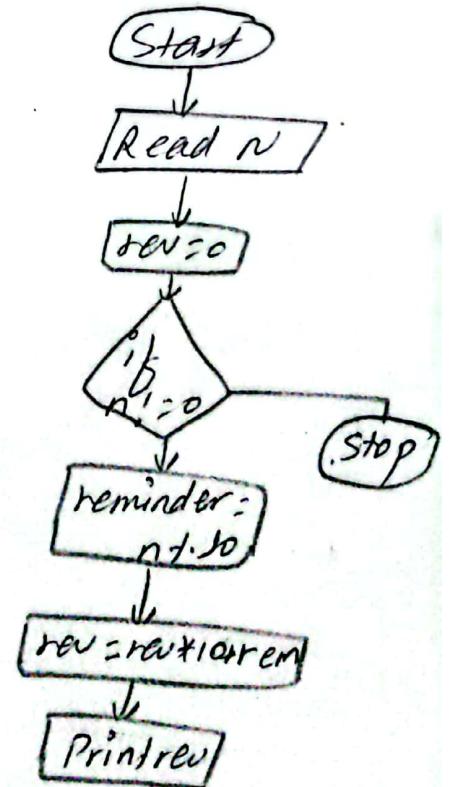
→ WFP to find cube and square of first 10 natural no.

```
#include <stdio.h>
main()
{
    int i, sqr, cube;
    if (i == 1; i <= 10; i++)
    {
        sqr = i * i;
        cube = i * i * i;
        printf("%d\t%d\t%d", i, sqr, cube);
    }
}
```



→ WFP to reverse of digit of number (hint 123 ⇒ 321)

```
#include <stdio.h>
main()
{
    int n, rev = 0, remainder;
    printf("Enter the value of number");
    scanf("%d", &n);
    while (n != 0)
    {
        remainder = n % 10;
        rev = rev * 10 + remainder;
        n = n / 10;
    }
    printf("rev = %d", rev);
}
```



WFP to complete sum of digits (Hint $123 \Rightarrow 1+2+3=8$)

#include <stdio.h>

main()

{

int n, sum=0, m;

printf("Enter number");

scanf("%d", &n);

while(n>0)

{

m = n%10

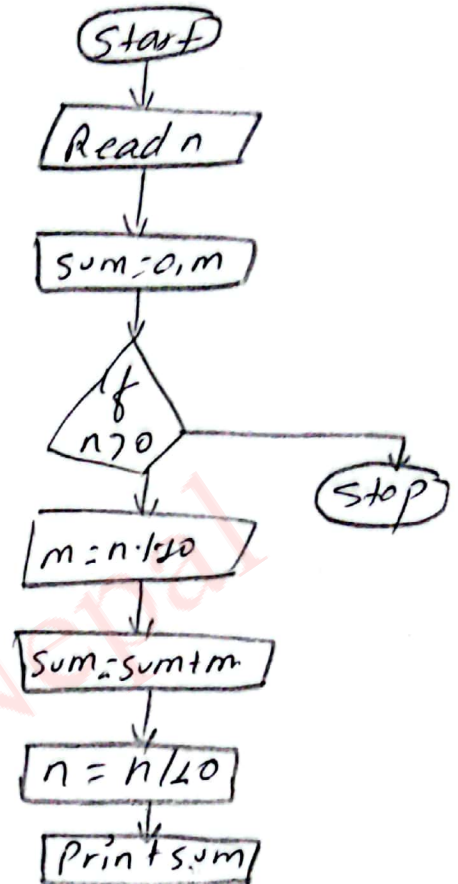
sum = sum + m

n = n/10

}

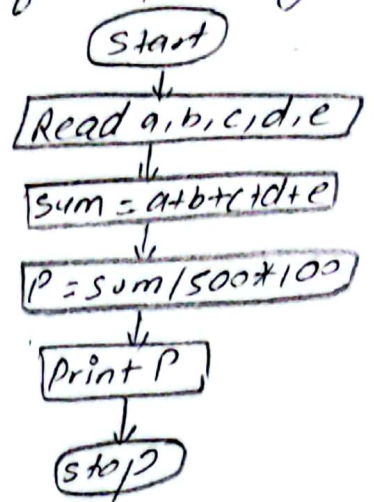
printf("sum is: %d", sum);

}



→ WFP to calculate sum of 5 subjects and find percentage.

```
#include <stdio.h>
main()
{
    int a, b, c, d, e, sum, p;
    printf("Enter the value of a, b, c, d, e");
    scanf("%d %d %d %d %d", &a, &b, &c, &d, &e);
    sum = a + b + c + d + e;
    p = sum / 500 * 100;
    printf("%d", p);
}
```



→ WAP to use switch statement to display sunday to saturday.

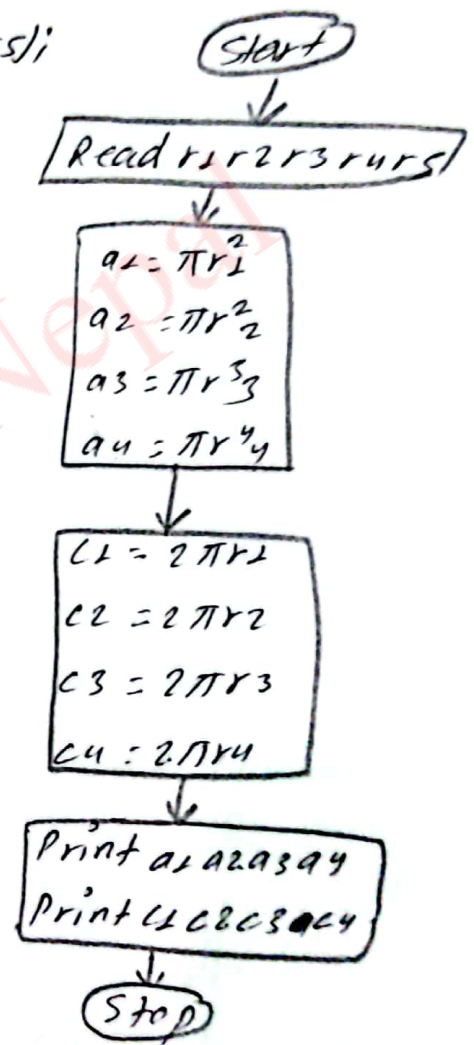
```
#include <stdio.h>
main()
{
    int choice;
    printf("Enter your choice");
    scanf("%d", &choice);
    switch (choice)
    {
        case 1:
            printf("Print sunday");
            break;
        case 2:
            printf("Print monday");
            break;
        case 3:
            printf("Print Tuesday");
            break;
        case 4:
            printf("Print Wednesday");
            break;
        case 5:
            printf("Print Thursday");
            break;
        case 6:
            printf("Print Friday");
            break;
    }
}
```

```
case 7:
    printf("Print Saturday");
    break;
case 8:
    printf("Print enter number between 1-7");
    break;
}
```

7. WAP to input 4 different radii and display respective areas & circumferences of the circles.

```
#include <stdio.h>

main()
{
    int r1, r2, r3, r4, r5, a1, a2, a3, a4, a5, c1, c2, c3, c4, c5;
    printf("Enter value of r1, r2, r3, r4, r5);
    scanf("%d %d %d %d %d", &r1, &r2, &r3, &r4, &r5);
    a1 = 3.14 * r1 * r1;
    a2 = 3.14 * r2 * r2;
    a3 = 3.14 * r3 * r3;
    a4 = 3.14 * r4 * r4;
    printf("%d %d %d %d", a1, a2, a3, a4);
    c1 = 2 * 3.14 * r1;
    c2 = 2 * 3.14 * r2;
    c3 = 2 * 3.14 * r3;
    c4 = 2 * 3.14 * r4;
    printf("%d %d %d %d", c1, c2, c3, c4);
}
```



WAP to enter the number till the user wants and at the end it should display the count of positive, negative & zeros entered.

```
#include <stdio.h>
```

```
main()
```

```
{
```

```
int number, positive=0, negative=0, zero=0;  
char choice;
```

```
do
```

```
{
```

```
printf("Enter a number");
```

```
scanf("%d", &number);
```

```
if (num > 0)
```

```
{
```

```
positive++;
```

```
}
```

```
else if (number < 0)
```

```
{
```

```
negative++;
```

```
}
```

```
else
```

```
{
```

```
zero++
```

```
}
```

```
printf("h.c", &choice);
```

```
}
```

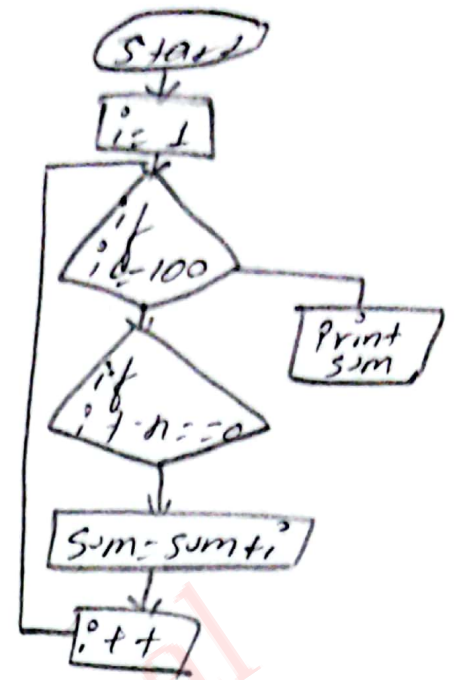
```
while(choice != 'y' || choice == 'y');
```

```
printf("At d positive number %d negative %d zero %d positive,  
& negative, & zero);
```

```
}
```

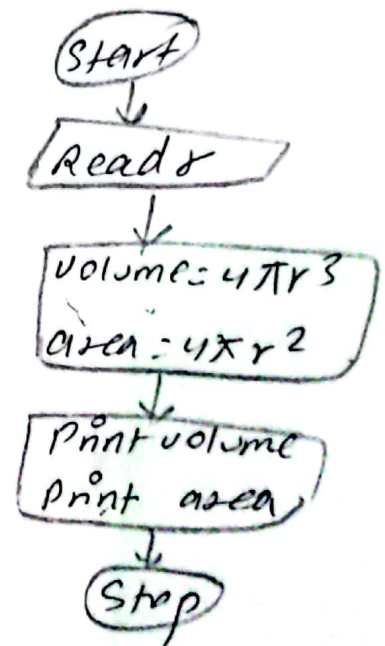
11. WPP to display sum of number from 1 to 100 which is exactly divisible by 11.

```
#include <stdio.h>
main()
{
    int i, sum = 0;
    for (i = 1; i <= 100; i++)
    {
        if (i % 11 == 0)
        {
            sum = sum + i;
        }
    }
    printf("%d", sum);
}
```



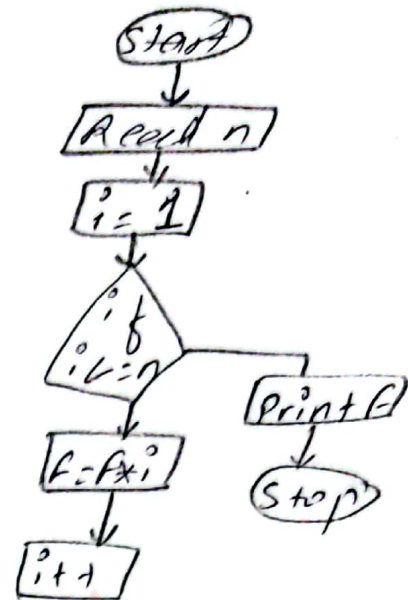
12. Write a program which reads radius of sphere from keyboard & calculates its volume & area.

```
#include <stdio.h>
main()
{
    int r, v, a;
    printf("Enter the value of r");
    scanf("%d", &r);
    volume = 4 * 3.14 * r * r * r;
    area = 4 * 3.14 * r * r;
    printf("%d %d", volume, area);
}
```



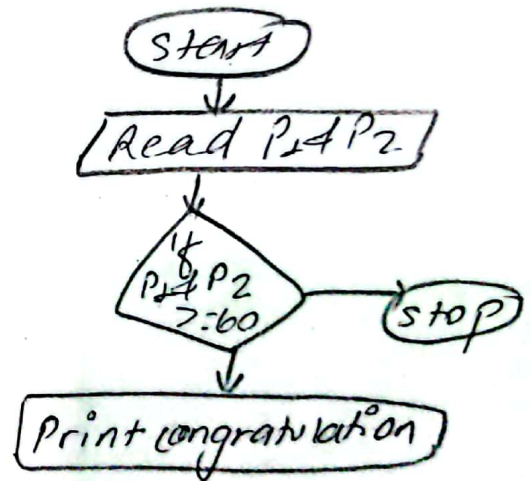
WAP to calculate the factorial of a positive number read from user.

```
#include <stdio.h>
main()
{
    int i, n, f = 1;
    printf("Enter the positive number n");
    scanf("%d", &n);
    for (i = 1; i <= n; i++)
        f = f * i;
    printf("Factorial of %d is %d", n, f);
}
```



WAP to read percentage of mark obtain by student in SLT+2 level. Display "CONGRATULATION". If both have percentage greater than or equal to 60.

```
#include <stdio.h>
main()
{
    int P1, P2;
    printf("Enter both percentage");
    scanf("%d %d", &P1, &P2);
    if (P1 >= 60 & P2 >= 60)
    {
        printf("Congratulation");
    }
}
```



WAP to enter two number. Make a comparison between them using a conditional operator. if first number is greater than second then display distance in meter otherwise division operator.

→

```
#include <stdio.h>
main()
{
    int d1, d2;
    printf("Enter the distance of ktm & pokhara ");
    scanf("%d %d", &d1, &d2);
    if (d1 > d2)
    {
        d1 = d1 * 1000;
        d2 = d2 * 1000;
        printf("d1 = %d / d2 = %d", d1, d2);
    }
    else
    {
        d1 = d1 * pow(1.5);
        d2 = d2 * pow(1.5);
        printf("d1 = %d / d2 = %d", d1, d2);
    }
}
```

WAP to enter two number. Make a comparison between them using a conditional operator. If first number is greater than second perform multiplication otherwise division.

→

```
#include <stdio.h>
```

```
main()
```

```
{
```

```
int a, b;
```

```
printf("Enter two number");
```

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

```
a > b?
```

```
printf("%d", a * b); printf("%d", a / b);
```

```
}
```

WAP to calculate the number of memory bytes required int, float, double, long & char data types variables.

→

```
#include <stdio.h>
```

```
main()
```

```
{
```

```
int a;
```

```
float b;
```

```
char c;
```

```
long d;
```

```
printf("%d bytes", sizeof(a));
```

```
printf("%d bytes", sizeof(b));
```

```
printf("%d bytes", sizeof(c));
```

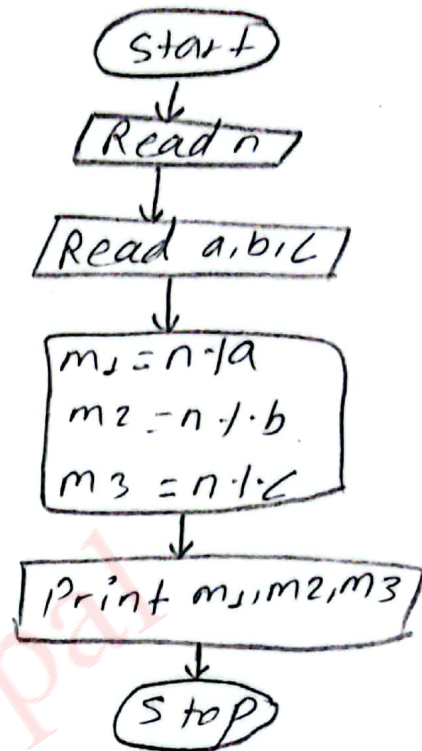
```
printf("%d bytes", sizeof(d));
```

```
}
```

WAP to enter a number and carry out modular division operation by a, b & c and display the remainders.

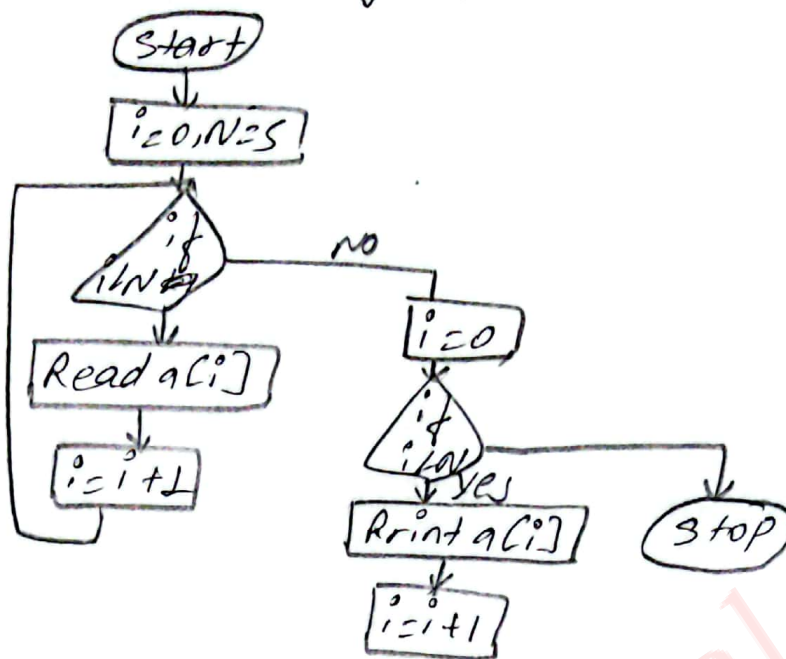


```
#include <stdio.h>
main()
{
    int n, a, b, c, m1, m2, m3;
    printf("Enter the number n");
    scanf("%d", &n);
    m1 = n % a;
    m2 = n % b;
    m3 = n % c;
    printf("%d %d %d", m1, m2, m3);
}
```



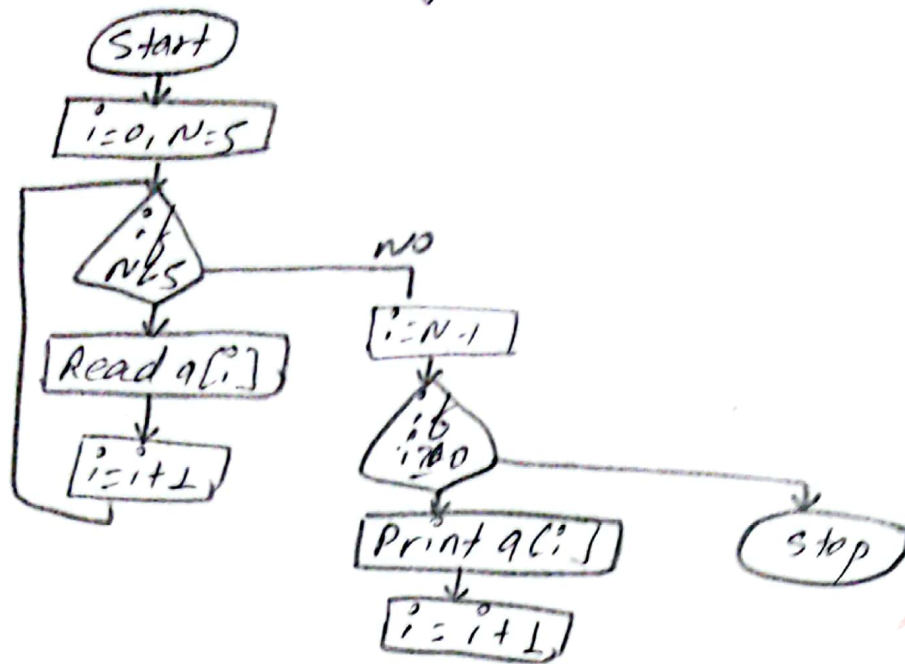
Study Notes Nepal

1. WFP to enter value in an array & print it.
→



```
#include <stdio.h>
#define N 5
main()
{
    int a[N], i;
    printf("Enter the value :");
    for (i = 0; i < N; i++)
    {
        scanf("%d", &a[i]);
    }
    printf("\n Print the value in array:");
    for (i = 0; i < N; i++)
    {
        printf("%d\t", a[i]);
    }
}
```

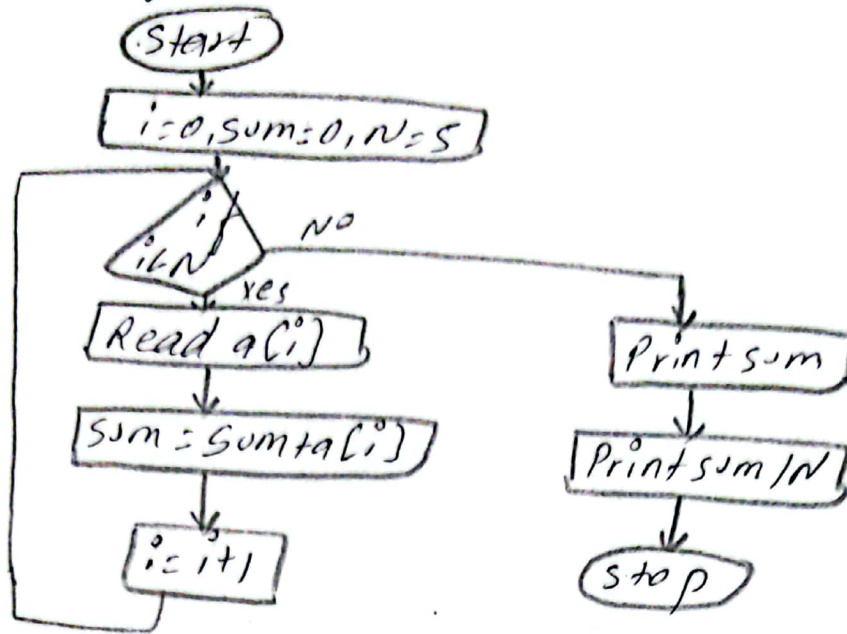
② w/f? to enter value in array & print it in reverse order.
 →



```

#include <stdio.h>
#define N 5
main()
{
    int a[N], i;
    printf("Enter values");
    for (i = 0; i < N; i++)
    {
        scanf("%d", &a[i]);
    }
    printf("\n print the value in array:");
    for (i = N - 1; i >= 0; i--)
    {
        printf("%d\t", a[i]);
    }
}
    
```

② WFP to read number in an array then find their sum & average.

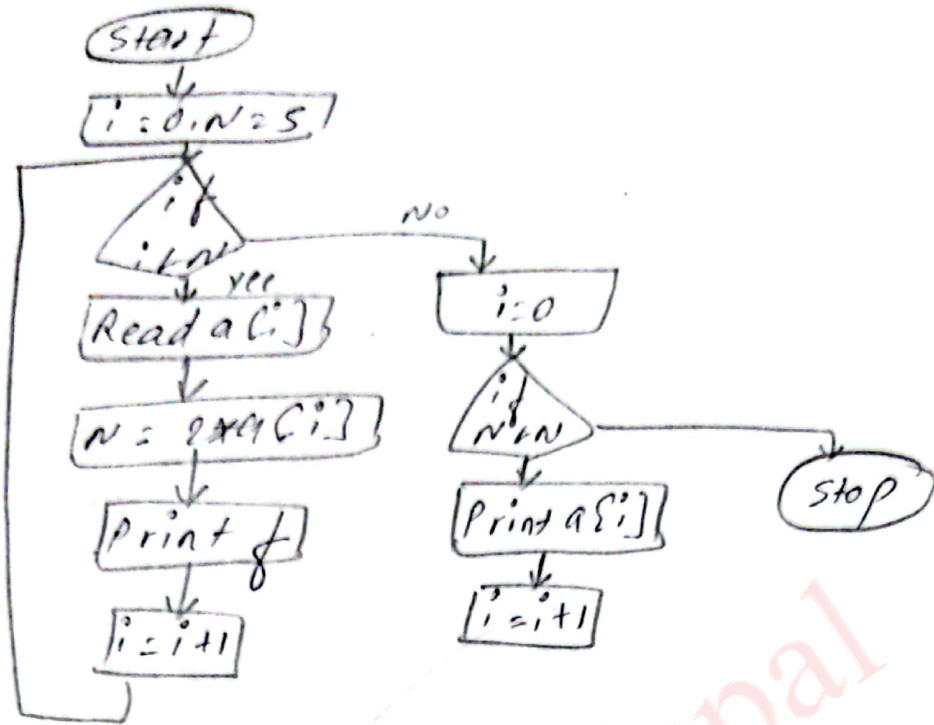


```

#include <stdio.h>
#define N 5
main()
{
    int a[N];
    printf("Enter the values:");
    for(i = 0; i < N; i++)
    {
        scanf("%d", &a[i]);
    }
    printf("\n Print the value in array");
    for(i = 0; i < N; i++)
    {
        printf("%d\t", a[i]);
    }
}
  
```

Q WFP to read numbers in array then double it & print it.

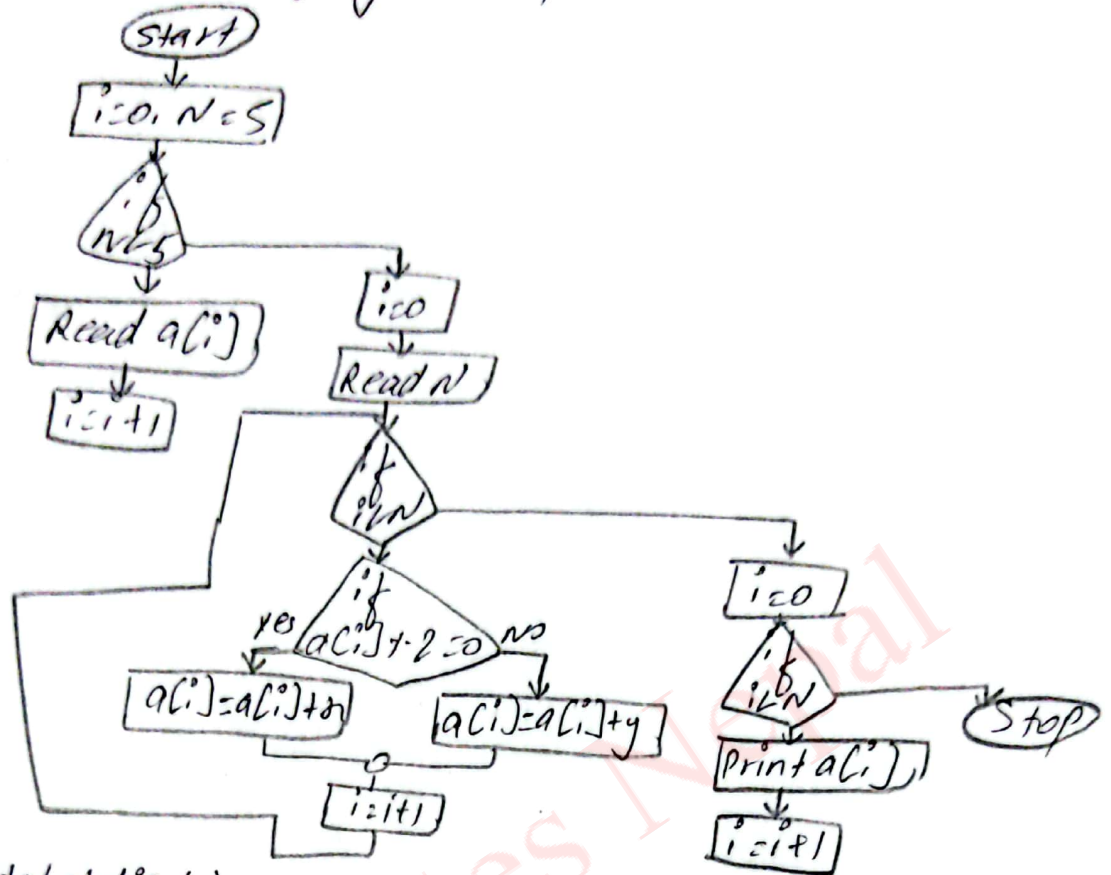
→



```

#include <stdio.h>
#define N5
main()
{
    int a[N], i, double;
    printf("Enter values in array");
    for (i = 0; i < N; i++)
    {
        scanf("%d", &a[i]);
        double = 2 * a[i];
        printf("double = %d", double);
    }
}
  
```

⑤ WFP to read in an array then increase all even number by n & odd number by y then print it.



```

#include <stdio.h>
#define N 5
main()
{
    int i, a[N], n, y;
    printf("Enter the value in array");
    for(i=0; i<N; i++)
    {
        scanf("%d", &a[i]);
    }
    for(i=0; i<N; i++)
    {
        if(a[i] % 2 == 0)
        {
            a[i] = a[i] + n;
        }
        else
        {
            a[i] = a[i] + y;
        }
    }
}
  
```

```

printf("\n printing values:");
for(i=0; i<N; i++)
{
    printf("%d\t", a[i]);
}
  
```

```
main()
```

۲

```
printf("Enter the value of a number");
```

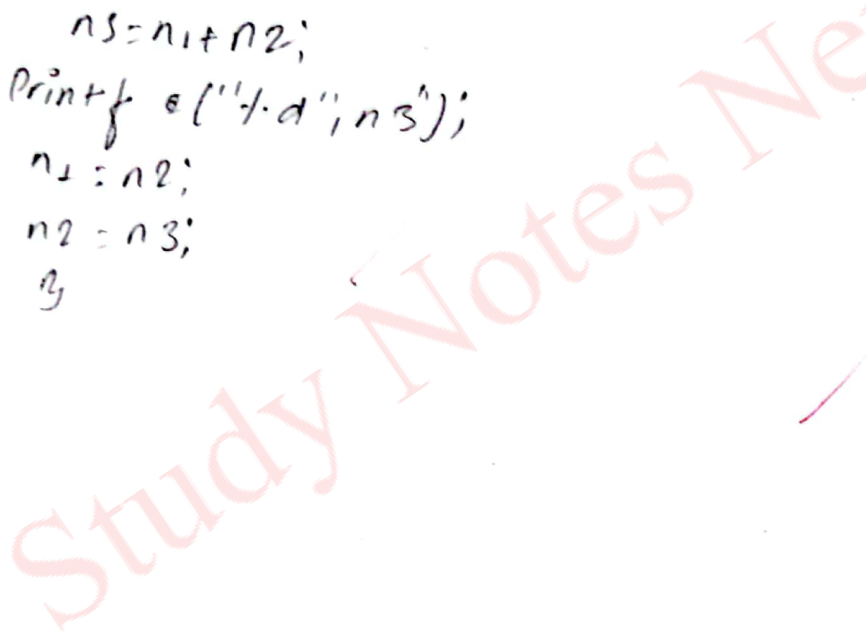
```
Print f("1n + d + d", n1, n2);
```

2

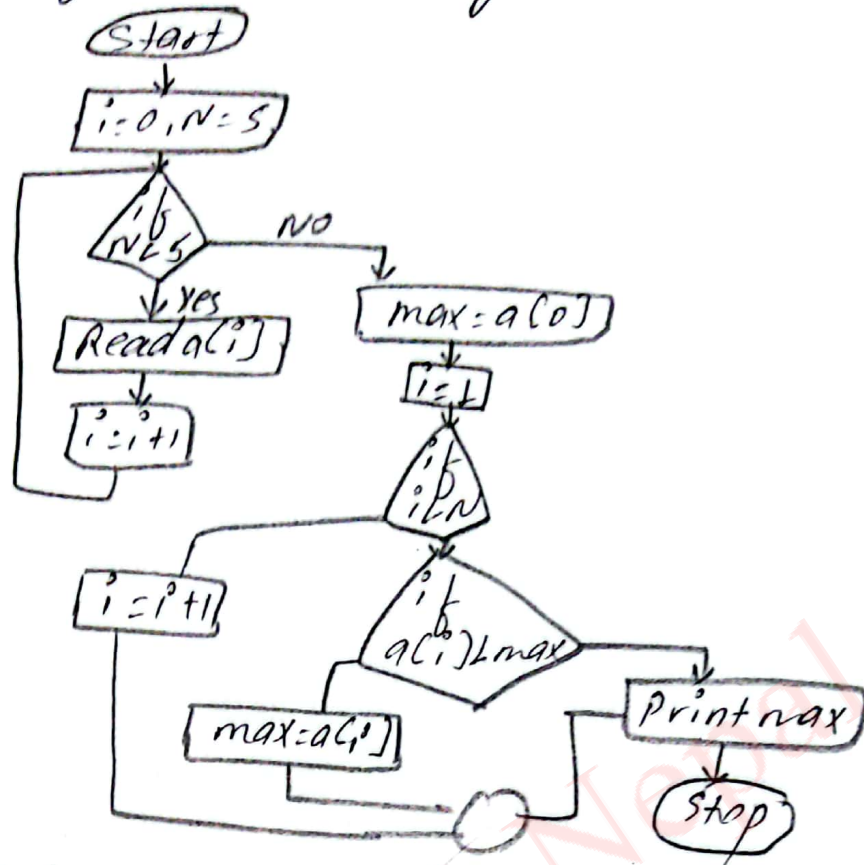
```
printf("%f.d", n3);
```

$$n_2 = n_3;$$

3



⑧ WFP to find largest number in array.



```

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

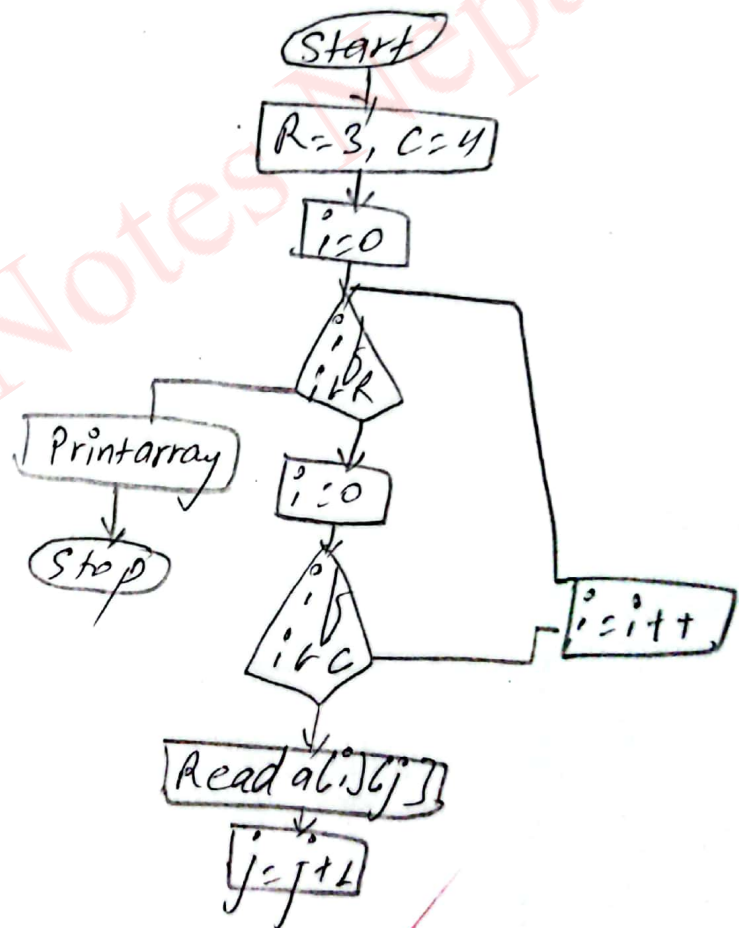
9) WFP to print sales in Rs & find the commission earned by a salesman from the following data.

values of sales	commission
upto Rs 10,000	8%.
Between Rs 10,000 to Rs 20,000	10%.
Above 20,000	12%.

```
#include <stdio.h>
main()
{
    int sales, commission;
    printf("Enter the sales value");
    scanf("%d", &sales);
    if (sales <= 10000)
    {
        commission = 0.08 * sales;
    }
    else if (sales > 10000 & sales <= 20000)
    {
        commission = 0.10 * sales;
    }
    else (sales > 20000)
    {
        commission = 0.12 * sales;
    }
    printf("Commission = %d", commission);
}
```

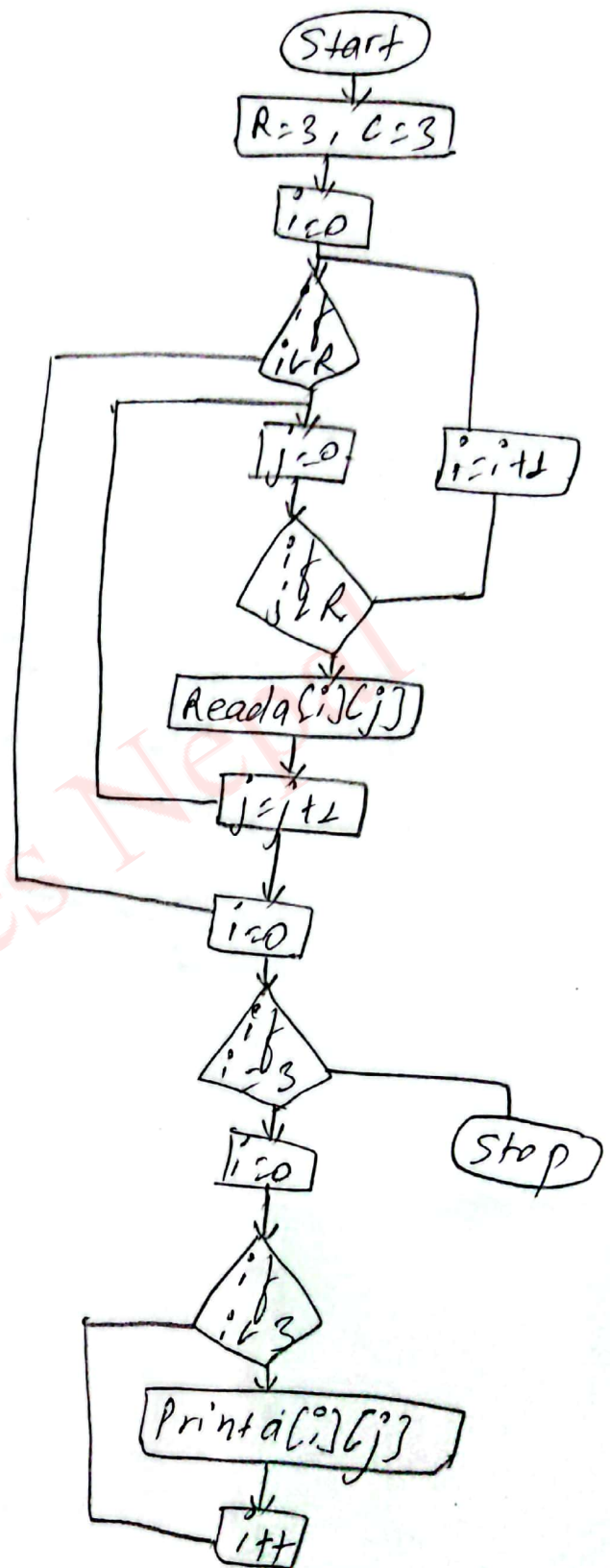
Q WFP to enter value in 2 dimensional array & print it.

```
#include <stdio.h>
#define R 3
#define C 4
int a[R][C], i, j;
printf("Enter the array");
for(i=0; j<C; j++)
{
    scanf("%d", &a[i][j]);
}
```



Q. WFP to read array of 3x3 size & print matrix in 2d array.

```
#include <stdio.h>
#define R 3
#define C 3
main()
{
    int a[R][C], i, j;
    printf("Enter the 3x3 size array");
    for (i=0; i<3; i++)
    {
        for (j=0; j<3; j++)
        {
            printf("Element +d+d", i, j);
            scanf("%d", &a[i][j]);
        }
        printf("\n the matrix is\n");
        for (i=0; i<3; i++)
        {
            printf("\n");
            printf("%d\t", a[i][j]);
        }
    }
}
```

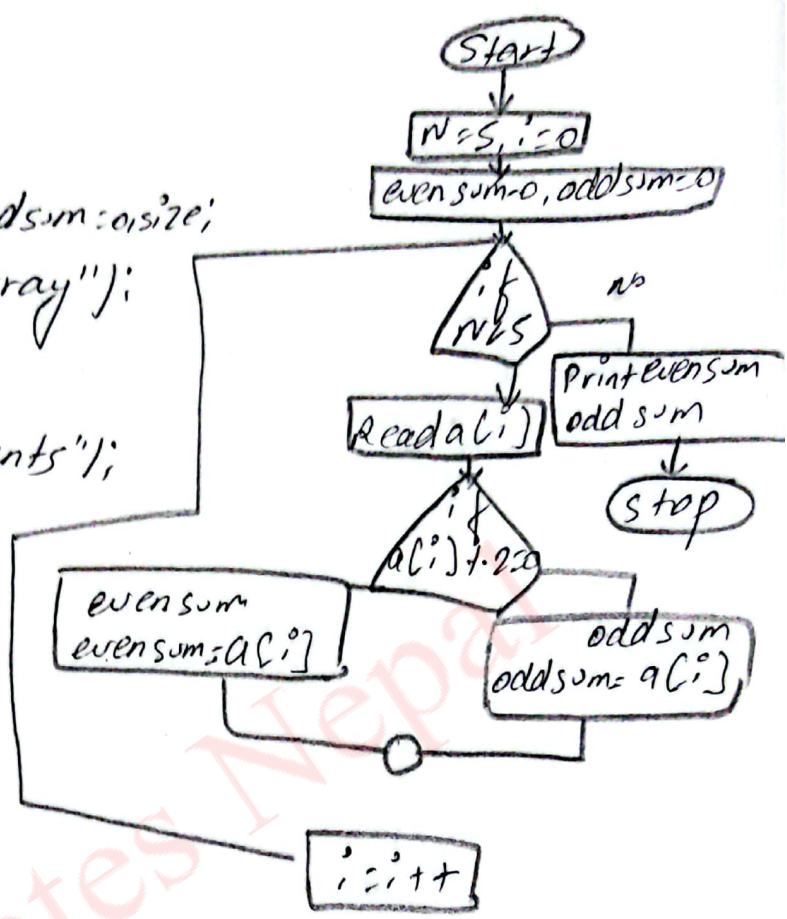


Q WFP to read n number from keyboard & store in array.
Find sum of even & odd number.

```

→ #include <stdio.h>
# define N 5
main()
{
    int a[N], even sum = 0, odd sum = 0, size;
    printf("Print the size of array");
    scanf("%d", &size);
    printf("Enter the array elements");
    for (i = 0; i < size; i++)
    {
        scanf("%d", &a[i]);
        for (j = 0; j < size; j++)
        {
            if (a[i] % 2 == 0)
            {
                even sum = even sum + a[i];
            }
            else
            {
                odd sum = odd sum + a[i];
            }
        }
    }
    printf("sum of even number is %d", even sum);
    printf("sum of odd number is %d", odd sum);
}

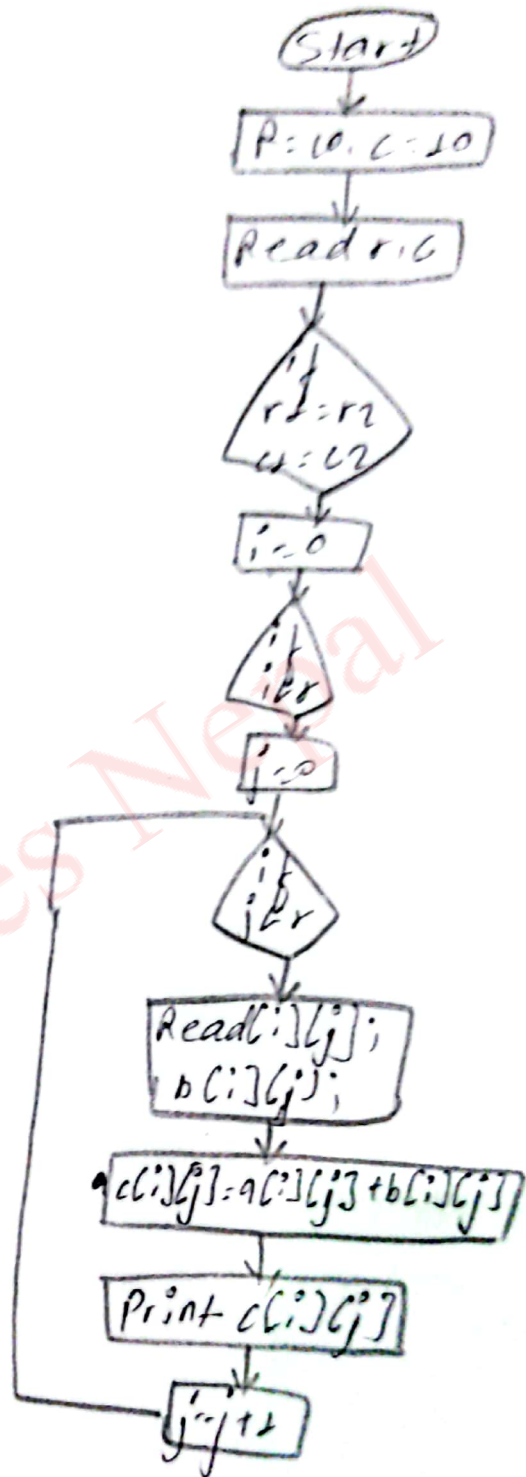
```



④ WFP to read in matrices in 2 dimensional array then assign sum of a & b matrix in c. Finally Print c matrix. Before doing simulation, first check it possible to dissmulator.

→

```
#include <stdio.h>
#define R 10
#define C 10
main()
{
    int m[R][C], i, j, a, b, c;
    printf("Enter the value of r, c");
    scanf("%d %d", &r, &c);
    if (r != r2) & c != c2;
    for (i = 0; i < r; i++)
    {
        for (j = 0; j < c; j++)
        {
            scanf("%d", &a[i][j]);
            scanf("%d", &b[i][j]);
            c[i][j] = a[i][j] + b[i][j];
            printf("%d \t", c[i][j]);
        }
    }
}
```



WAP to find sum of diagonal (trace) of a square matrix.

→

#include <stdio.h>

#define R 3

#define C 3

{

int m[R][C]; int i, j; sum = 0;

printf("Enter the element of matrix");

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

{

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

{

scanf("%d", &m[i][j]);

}

printf("The matrix is\n");

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

{

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

{

printf("%d\t", m[i][j]);

}

printf("\n");

}

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

{

if (i == j)

{

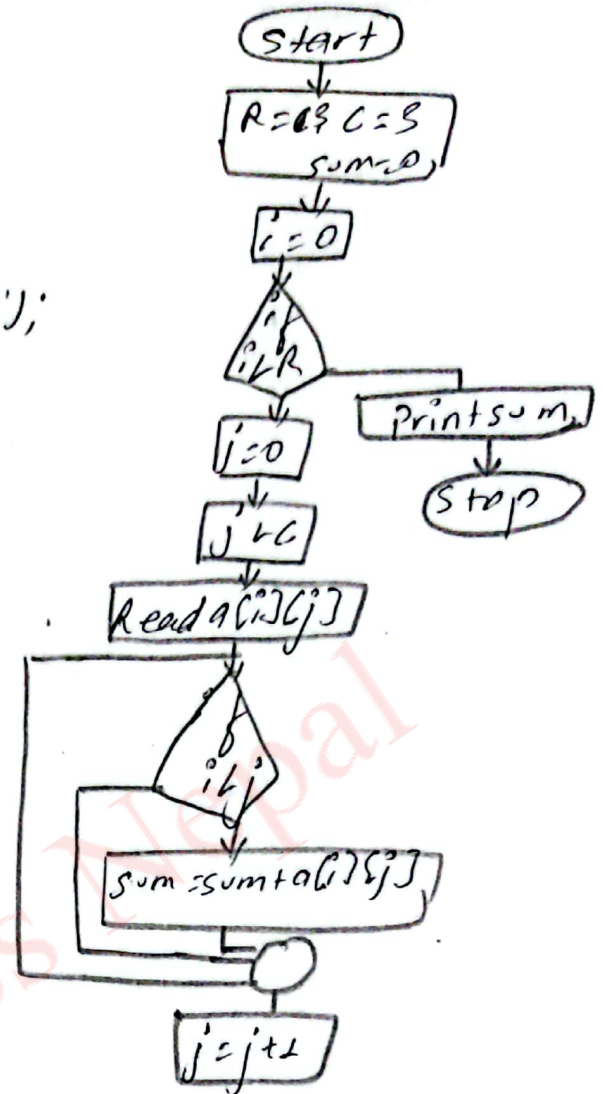
sum = sum + m[i][j];

}

}

printf("The sum of diagonal element of square is %d", sum);

}

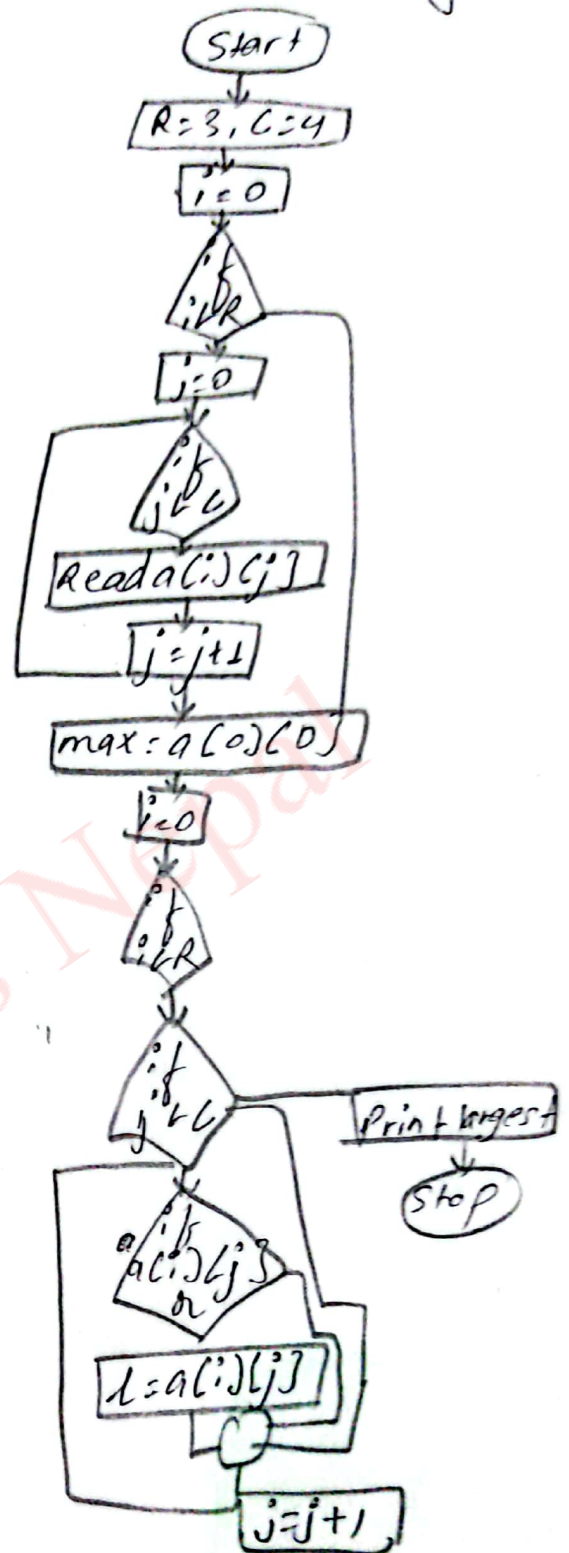


① WAP to find the largest number in 2-dimensional array.

```

→ #include <stdio.h>
#define R 3
#define C 4
main()
{
    int m, n, a[R][C], i, j;
    printf("Enter the numbers of rows & columns);
    scanf("%d %d", &m, &n);
    printf("Enter the elements of matrix");
    for (i=0; i<m; i++)
    {
        for (j=0; j<n; j++)
        {
            scanf("%d", &a[i][j]);
        }
        printf("The element in matrix");
        for (int i=0; i<m; i++)
        {
            printf("%d", a[i][j]);
        }
        printf("\n");
        for (i=0; i<n; i++)
        {
            if (a[i][j] > l)
            {
                l = a[i][j];
            }
        }
        printf("The largest element is %d\n", l);
    }
}

```



Q WAP to find smallest & largest in array.

```
→ #include <stdio.h>
#include <conio.h>
main()
{
```

```
    int a[50], i, n, largest, small;
```

```
    printf("Enter the number");
```

```
    scanf("%d", &n);
```

```
    printf("Enter the array");
```

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

```
        scanf("%d", &a[i]);
```

```
    largest = small = a[0];
```

```
    for(i = 1; i < n; i++)
```

```
    {
```

```
        if(a[i] < small
```

```
            small = a[i];
```

```
    }
```

```
    printf("The largest is %d", largest);
```

```
    printf("\n The smallest is %d", small);
```

```
    getch();
```

```
}
```