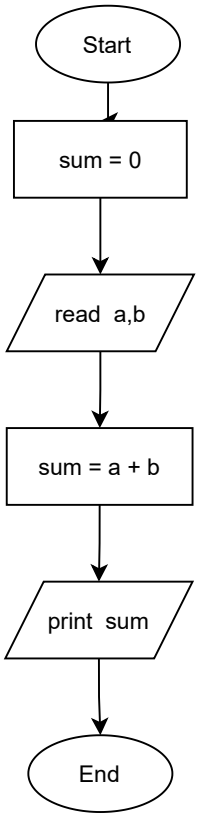
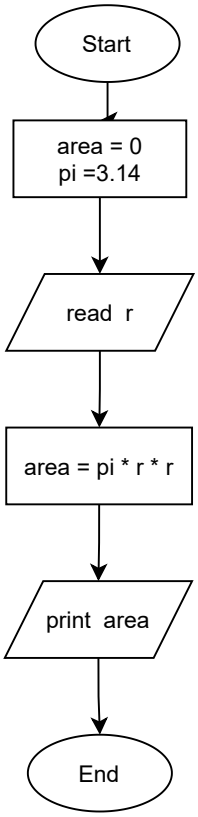
flowcharts

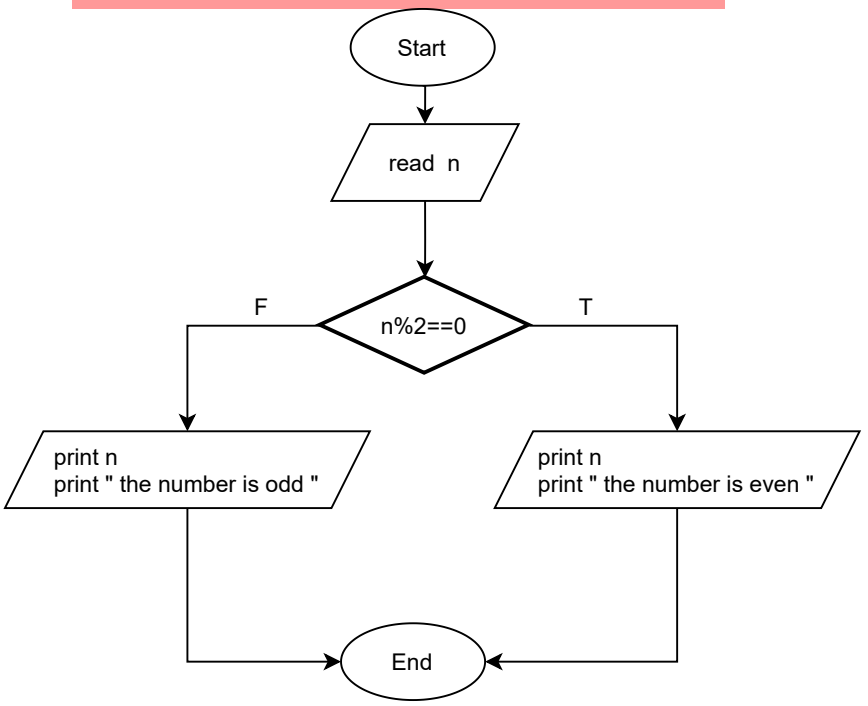
1. Draw a flowchart to add two numbers entered by user.



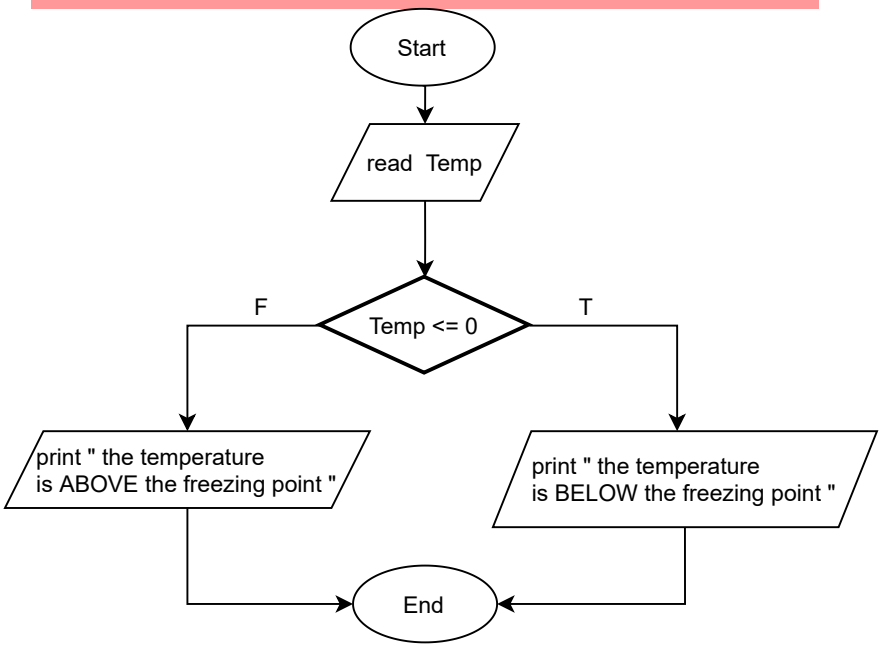
2. Calculate the area of a circle with given radius.



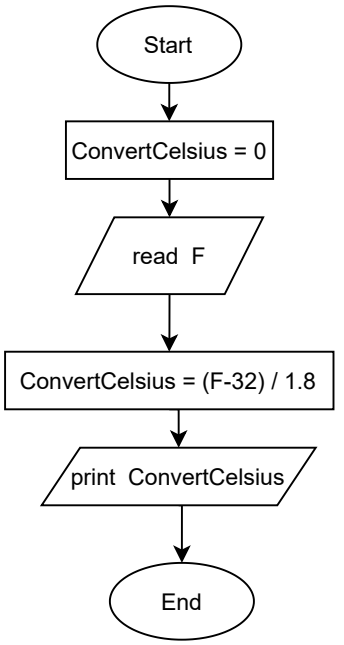
3. Determine and Output Whether Number N is Even or Odd.



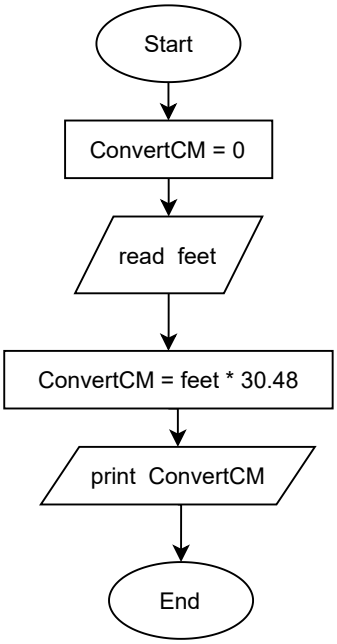
4. Determine Whether a Temperature is Below or Above the Freezing Point



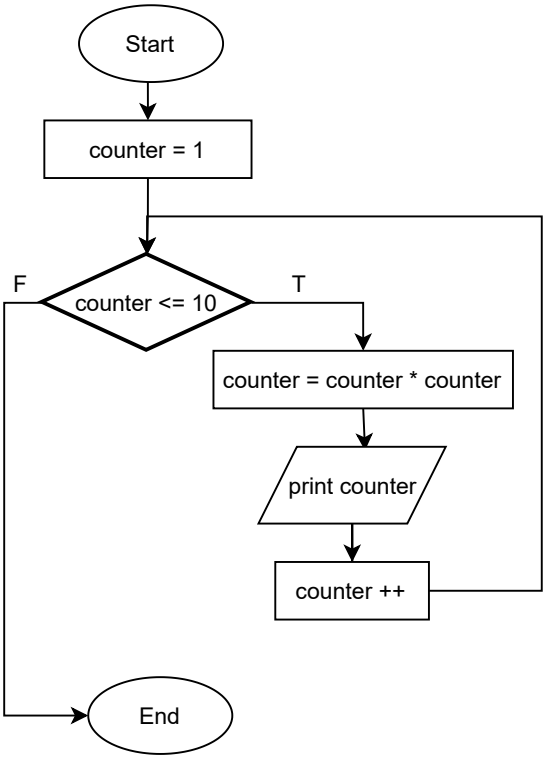
5. Convert Temperature from Fahrenheit (℉) to Celsius (℃).



6. Write an algorithm and draw a flowchart to convert the length in feet to centimeter.

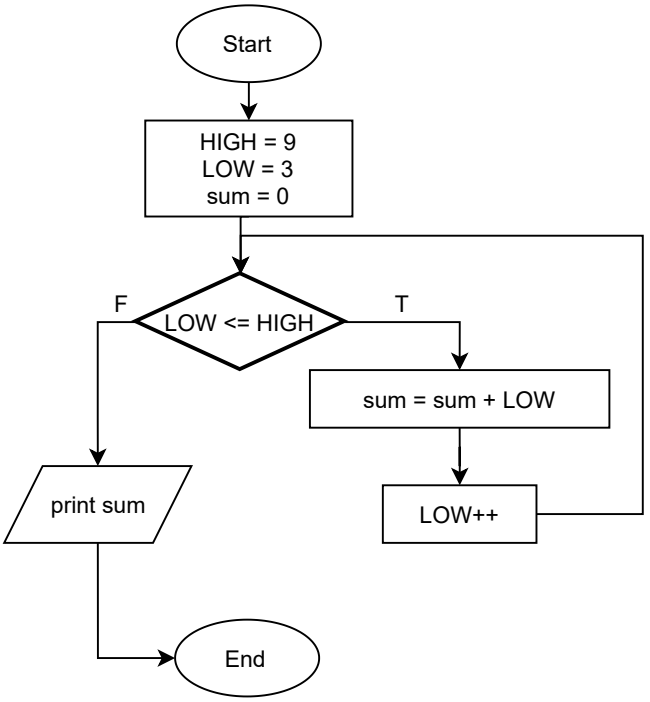


7. Write an algorithm and draw a flowchart to print the square of all numbers from 1 to10.



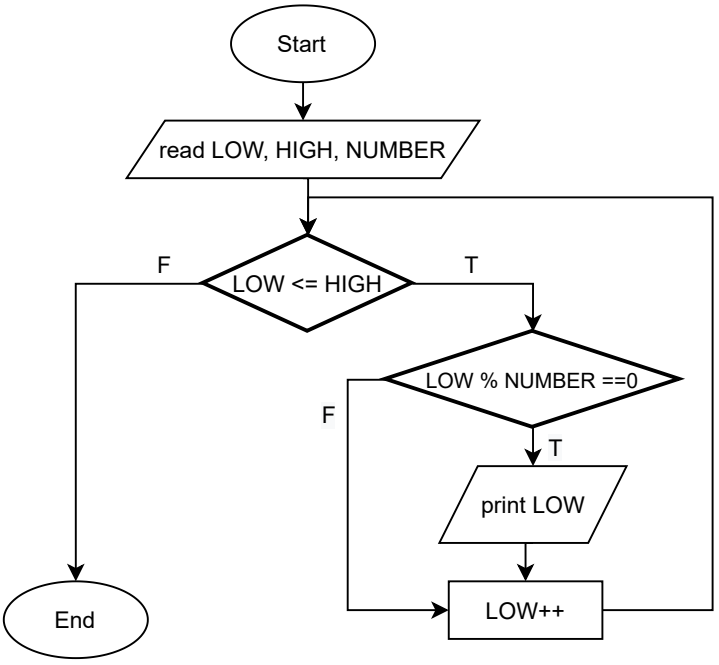
step 1: Start
step 2: let counter =1
step 3: while (counter <= 10)
counter =counter * counter
print counter
counter++
step 4: End

8. Write an algorithm and draw a flowchart to print the SUM of numbers from LOW to HIGH. Test with LOW=3 and HIGH=9.



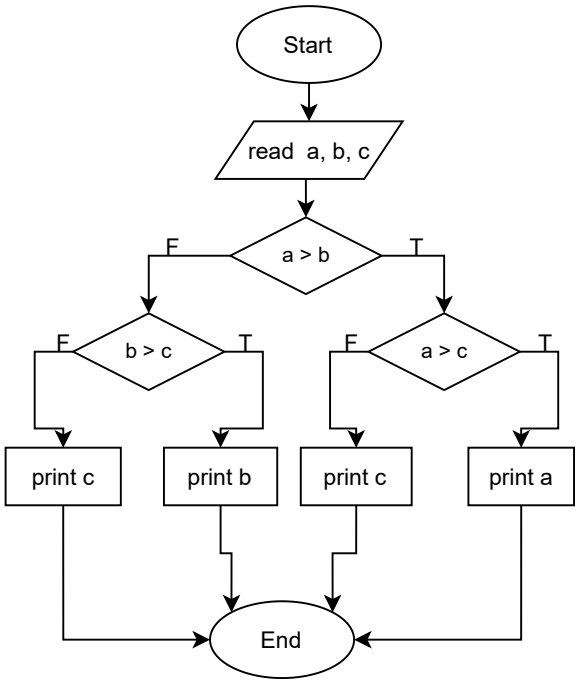
step 1: Start
step 2: let counter =1
step 3: while (counter <= 10)
sum = sum + LOW
LOW++
step 4: print sum
step 5: End

9. Write an algorithm and draw a flowchart to print all numbers between LOW and HIGH that are divisible by NUMBER

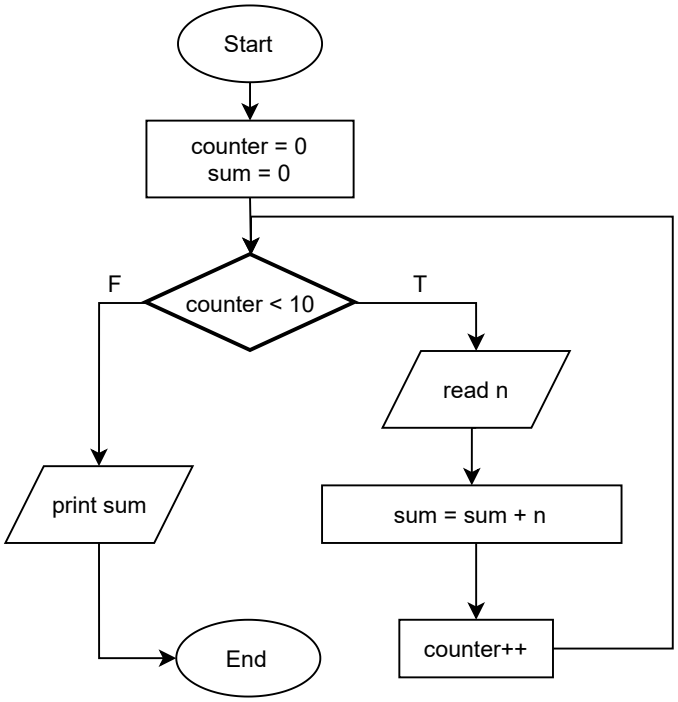


step 1: Start
step 2: read LOW, HIGH, NUMBER
step 3: while (LOW <= HIGH)
if (LOW % NUMBER == 0)
print LOW
LOW++
else
LOW++
step 4 End

10. Draw a flowchart to find the largest of three numbers A, B, and C.

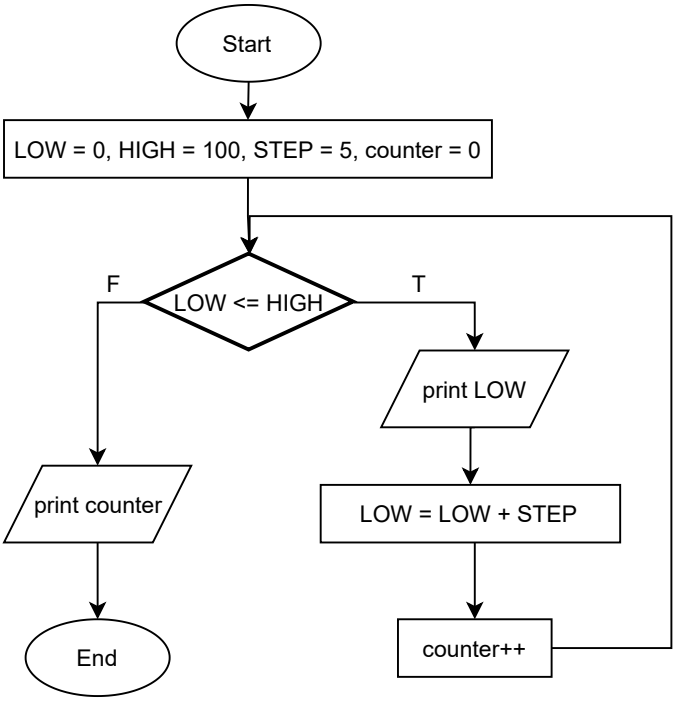


11. Draw a flowchart for a program that reads 10 numbers from the user and prints out their sum, and their product.

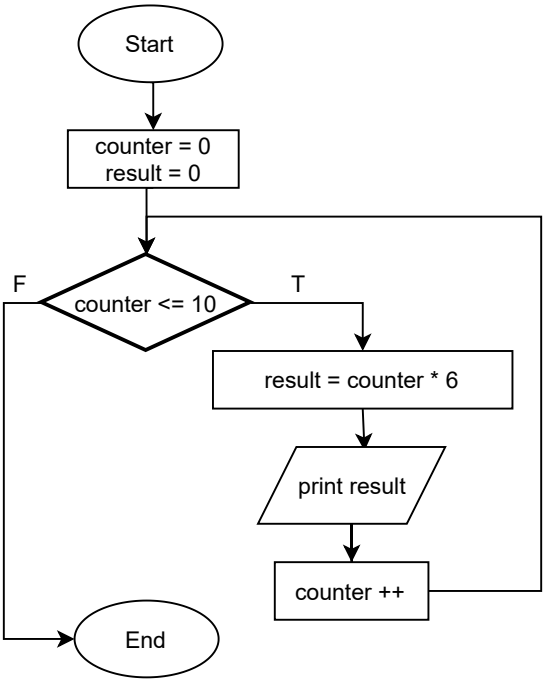


12. Write an algorithm and draw a flowchart to count and print all numbers from LOW to HIGH by steps of STEP. Test with LOW=0 and HIGH=100 and STEP=5.

step 1: Start
step 2: let LOW = 0, HIGH = 100, STEP = 5, counter = 0
step 3: while (LOW <= HIGH)
print LOW
LOW = LOW + STEP
counter++
step 4 print counter
step 5: End

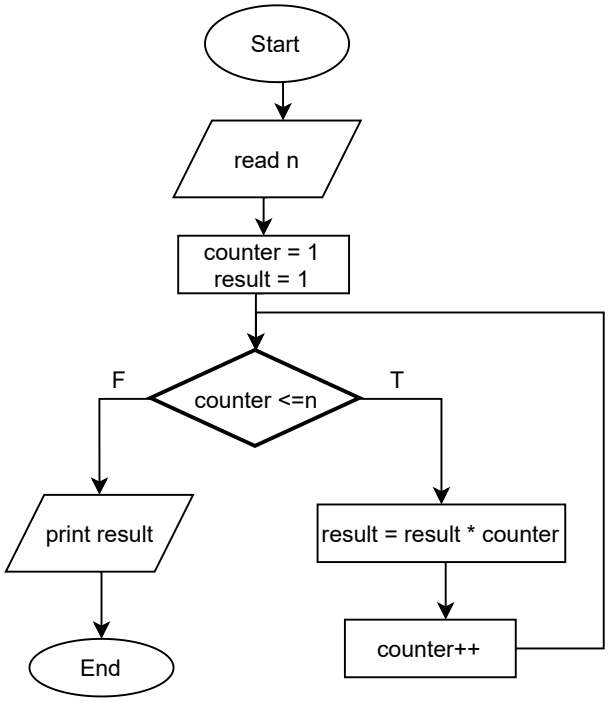


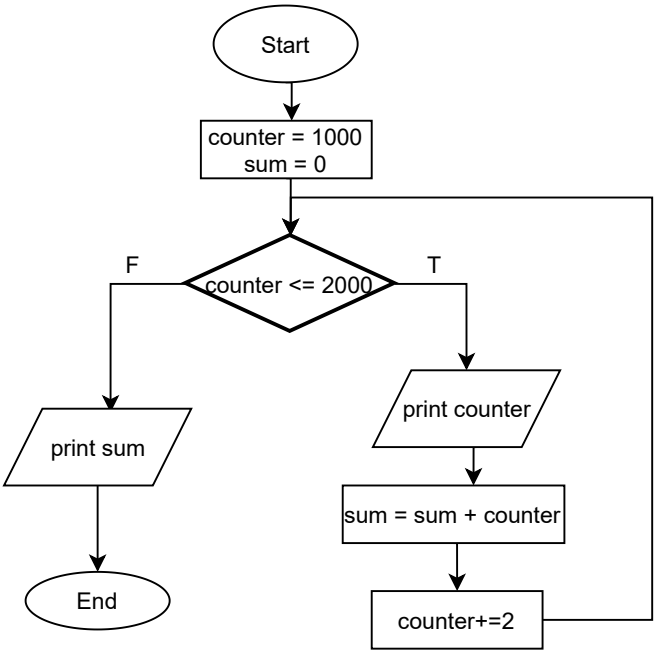
13. Write an algorithm and draw a flowchart to print the multiplication table for 6's.



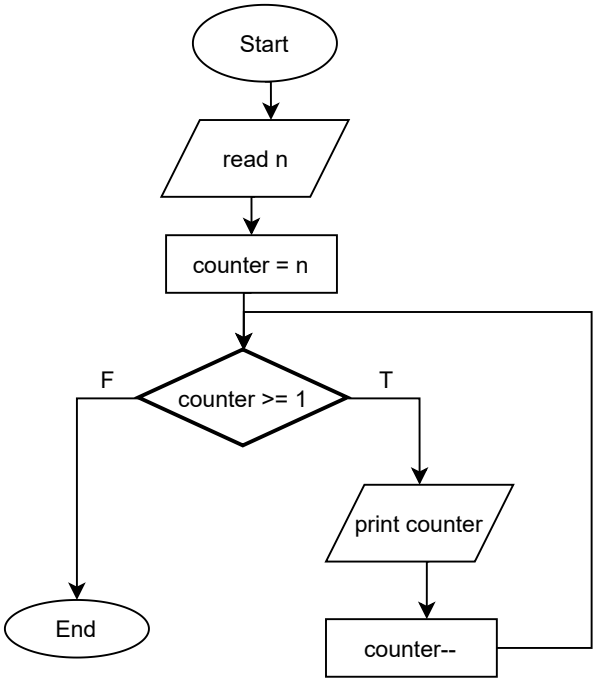
step 1: Start
step 2: let counter =0, result = 0
step 3: while (counter <= 10)
result =counter * 6
print result
counter++
step 4: End

14. Draw a flowchart for computing factorial N (N!).





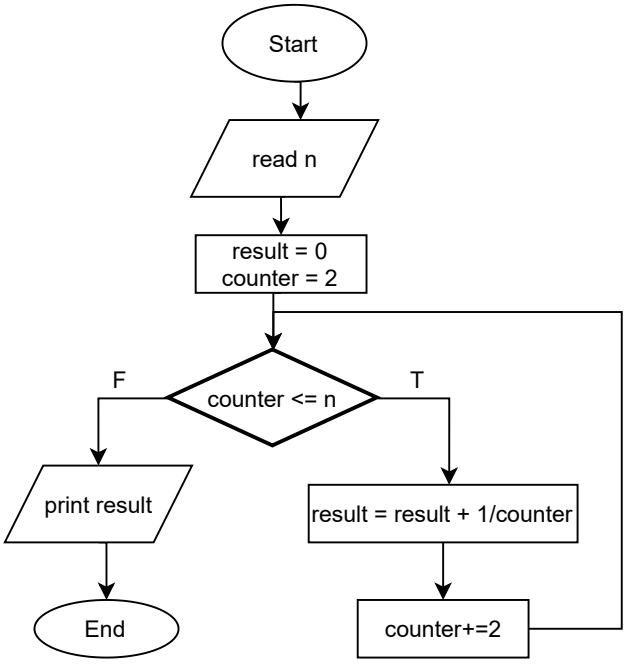
15. Draw a flow chart to print all natural numbers in reverse (from n to 1).



16. Design an algorithm which generates even numbers between 1000 and 2000 and then prints them in the standard output. It should also print total sum.

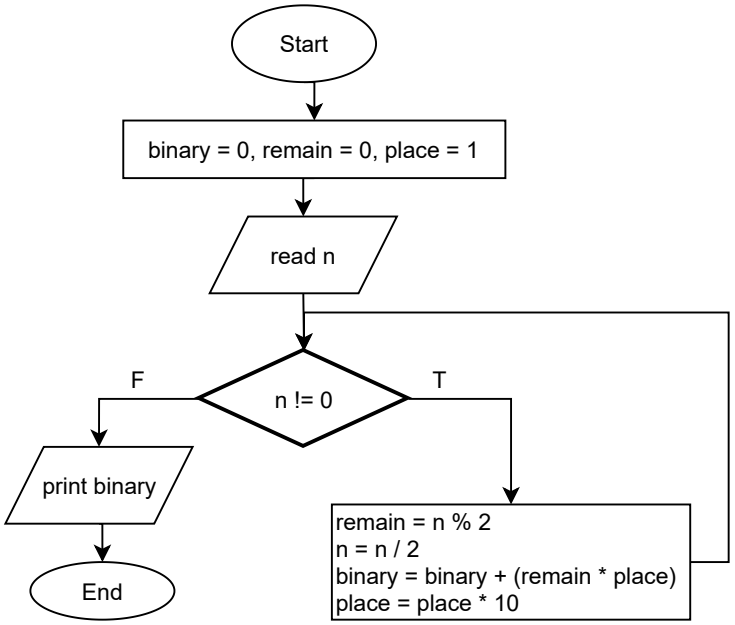
step 1: Start
step 2: let sum = 0, counter = 1000
step 3: while (counter <= 2000)
print counter
sum = sum + counter
counter = counter + 2
step 4: print sum
step 5: End

17. Design an algorithm with a natural number, n, as its input which calculates the following formula and writes the result in the standard output: S = ½ + ¼ + … +1/n.



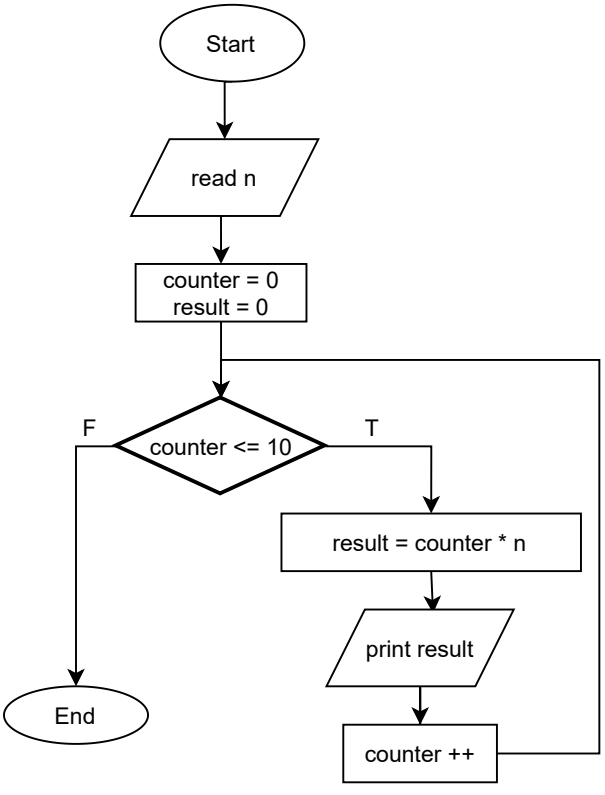
step 1: Start
step 2: read n
step 3: let counter = 2, result = 0
step 4: while (counter <= n)
result = result + 1/counter
counter = counter + 2
step 5: print result
step 6: End

18. Design an algorithm to convert a decimal number, n, to binary format?

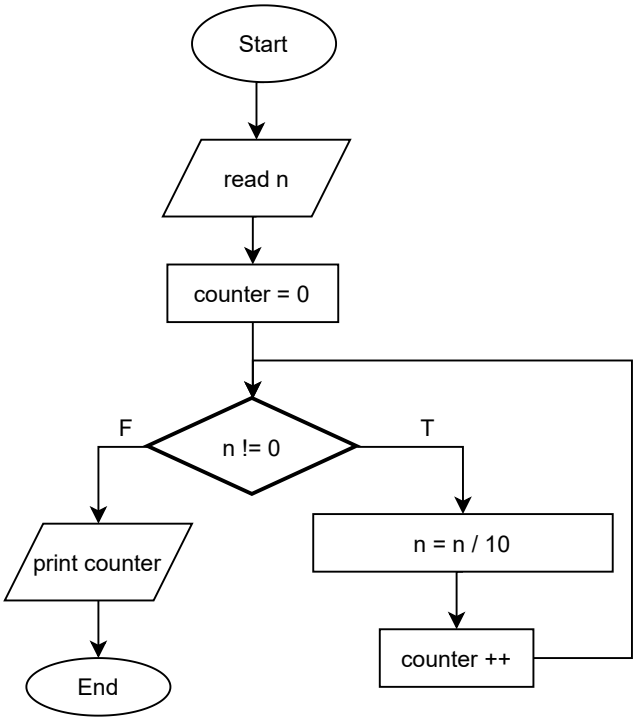


step 1: Start
step 2: let binary = 0, remain = 0, place = 1
step 3: read number, n
step 3: while (n != 0)
remain = n % 2
n = n / 2
binary = binary + (remain * place)
place = place * 10
step 4: print binary
step 5: End

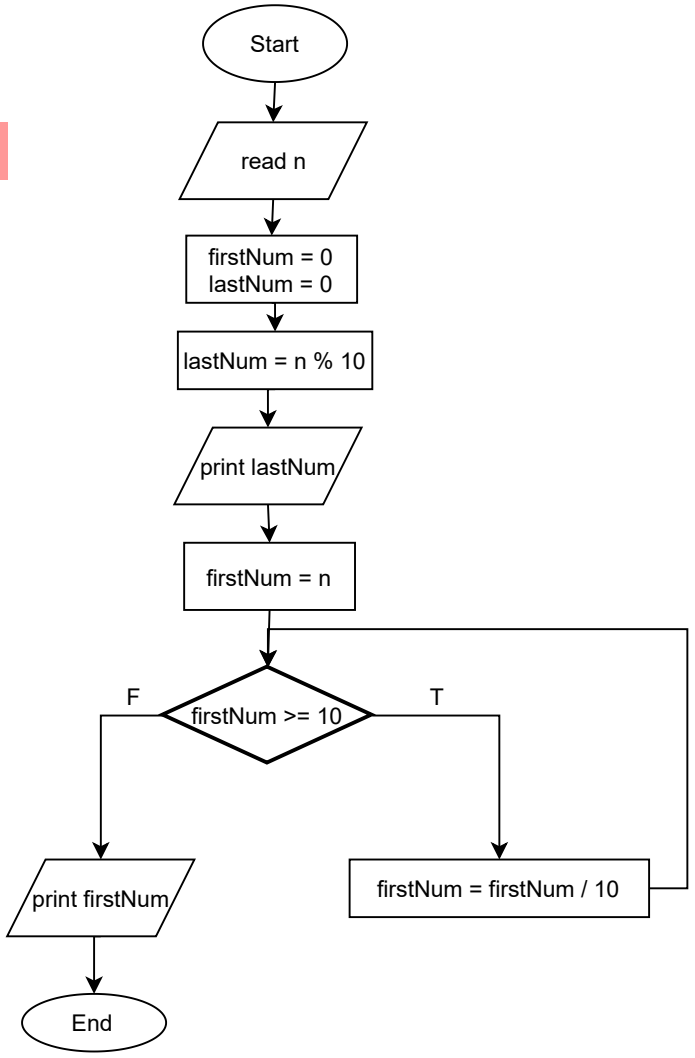
19. Draw a flow chart to print multiplication table of any number



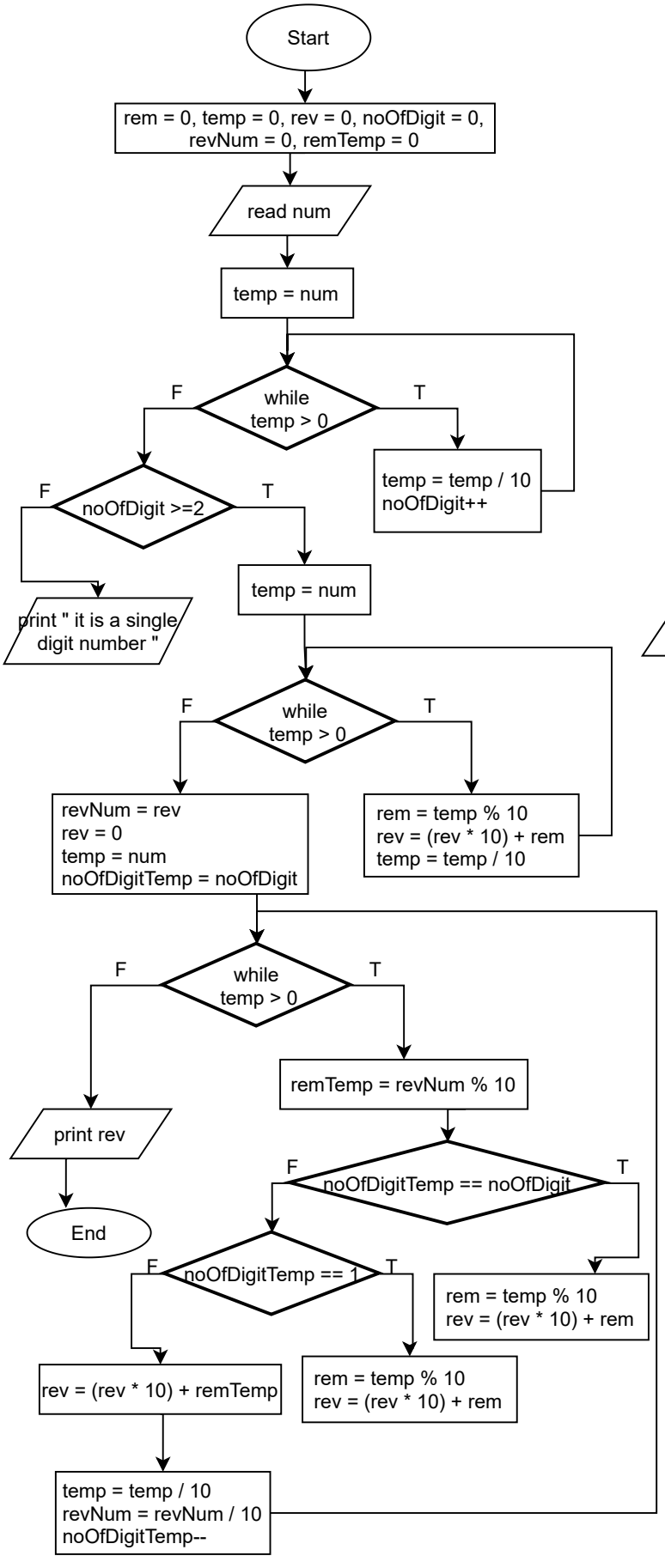
20. Draw a flow chart to count number of digits in a number.



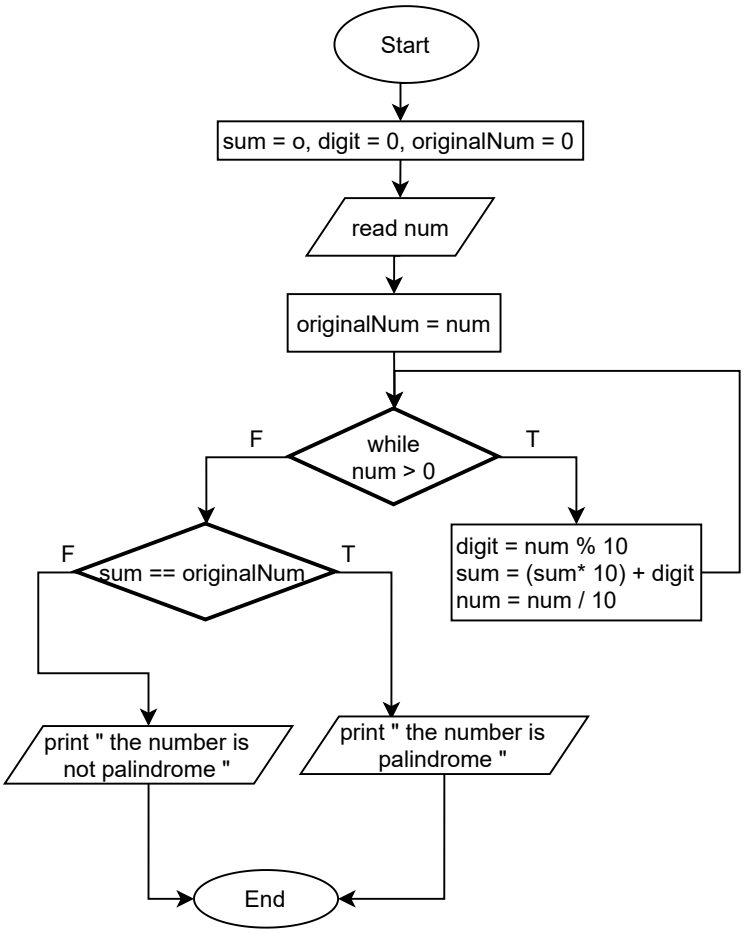
21. Draw a flow chart to find first and last digit of a number.



22. Draw a flow chart to swap first and last digits of a number.



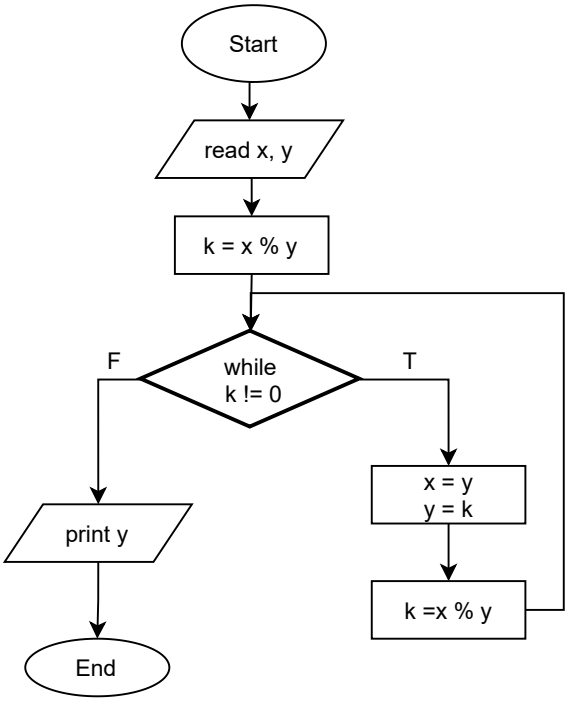
23. Draw a flow chart to check whether a number is palindrome or not.



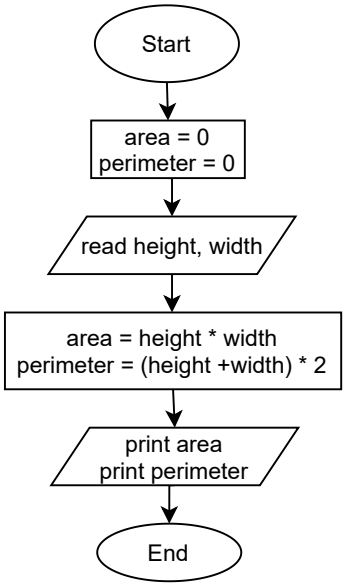
24. Draw a flow chart to find frequency of each digit in a given integer

The answer to this question is on
the last page

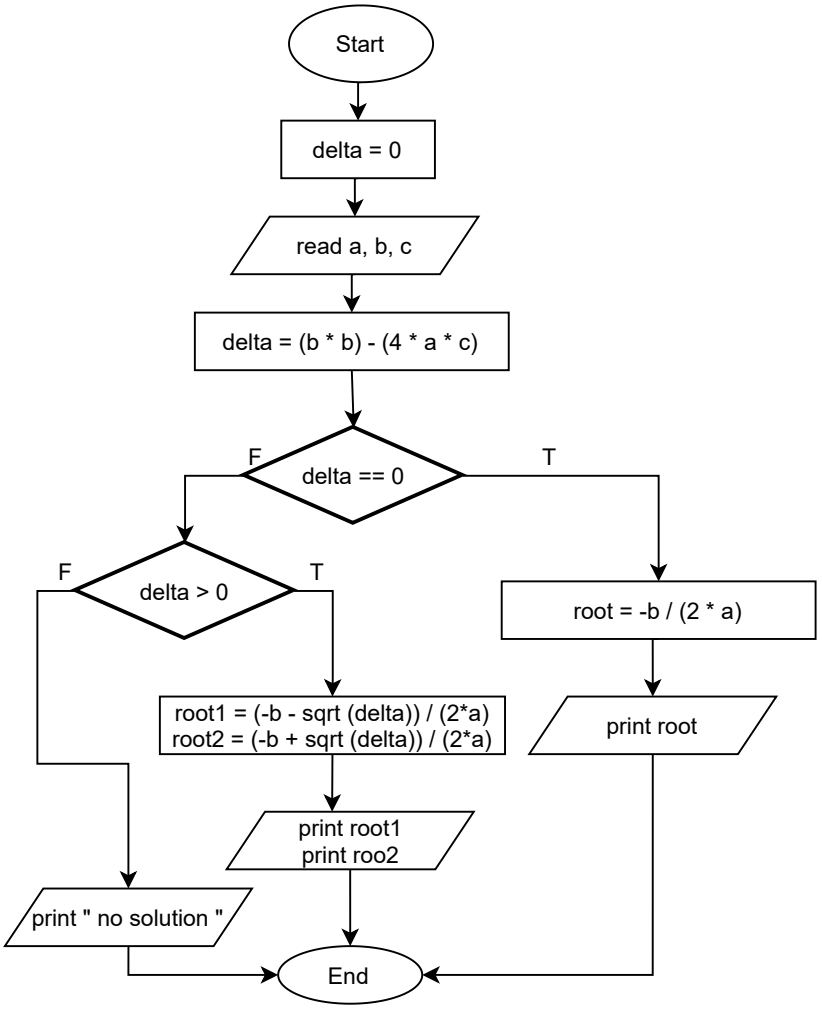
25. Draw a flow chart to find HCF (Highest Common Factor) of two numbers.



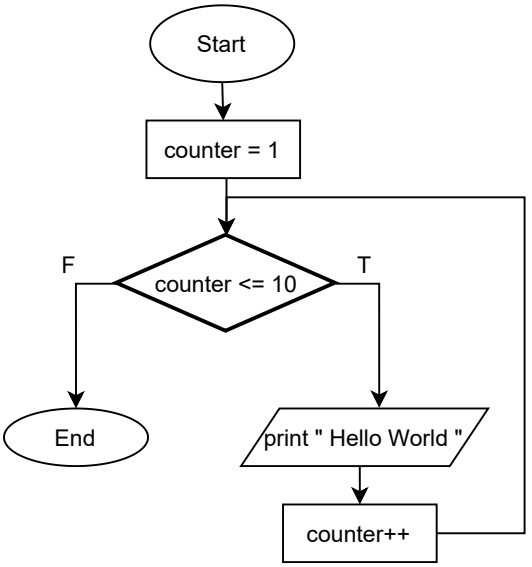
1. Write an algorithm and draw a flowchart that will read the two sides of a rectangle and calculate its area and perimeter.



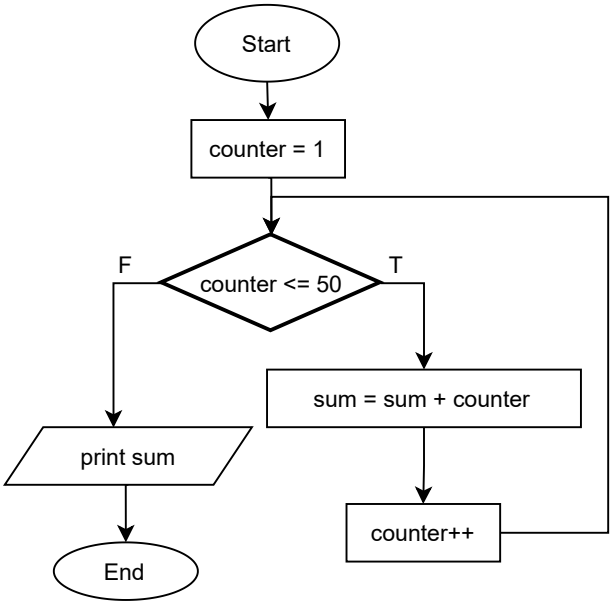
2. Draw a flowchart to find all the roots of a quadratic equation ax2+bx+c=0.



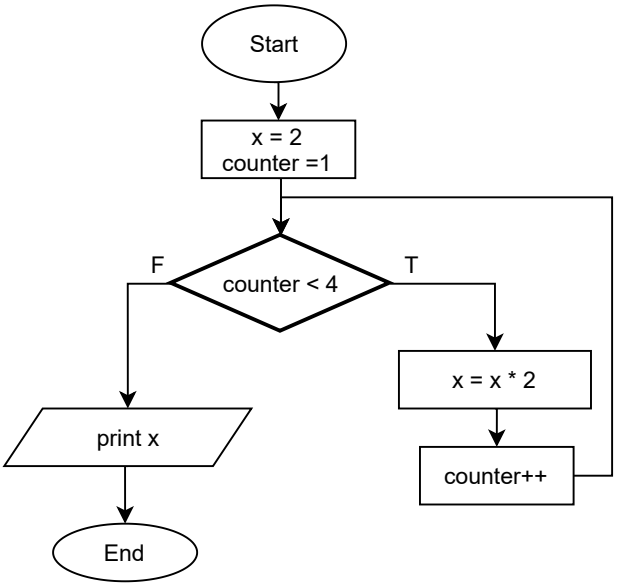
3. Print Hello World 10 times



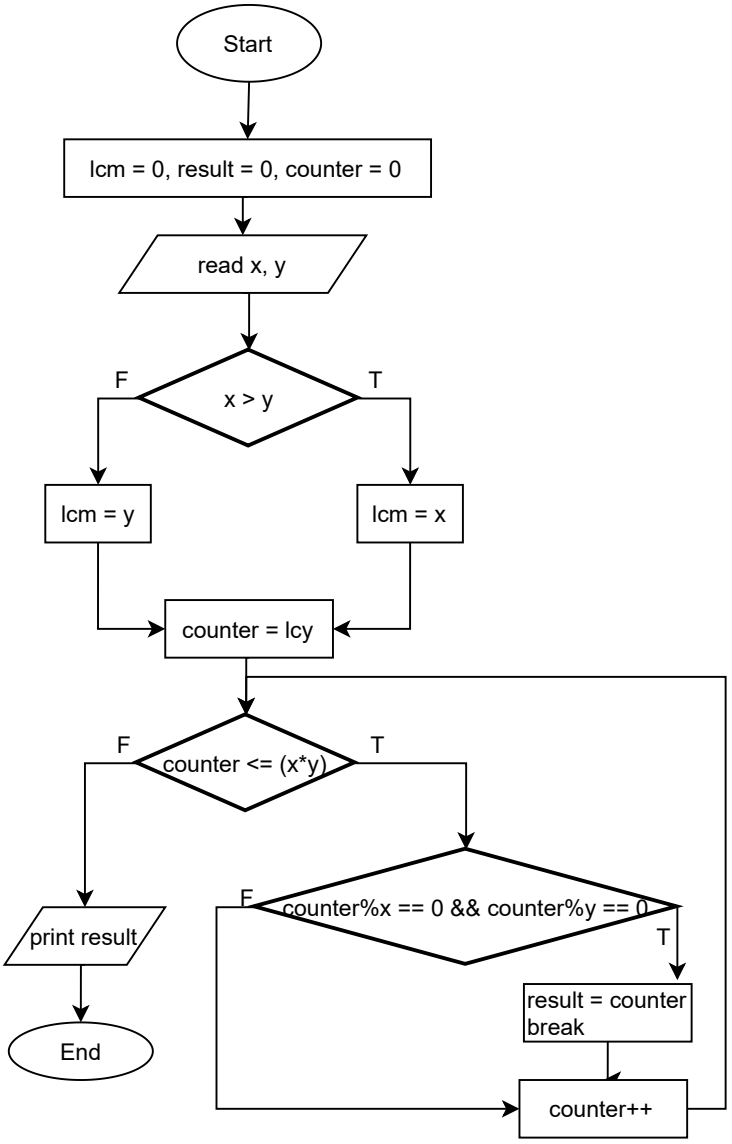
4. Draw a flowchart to find the sum of the first 50 natural numbers.



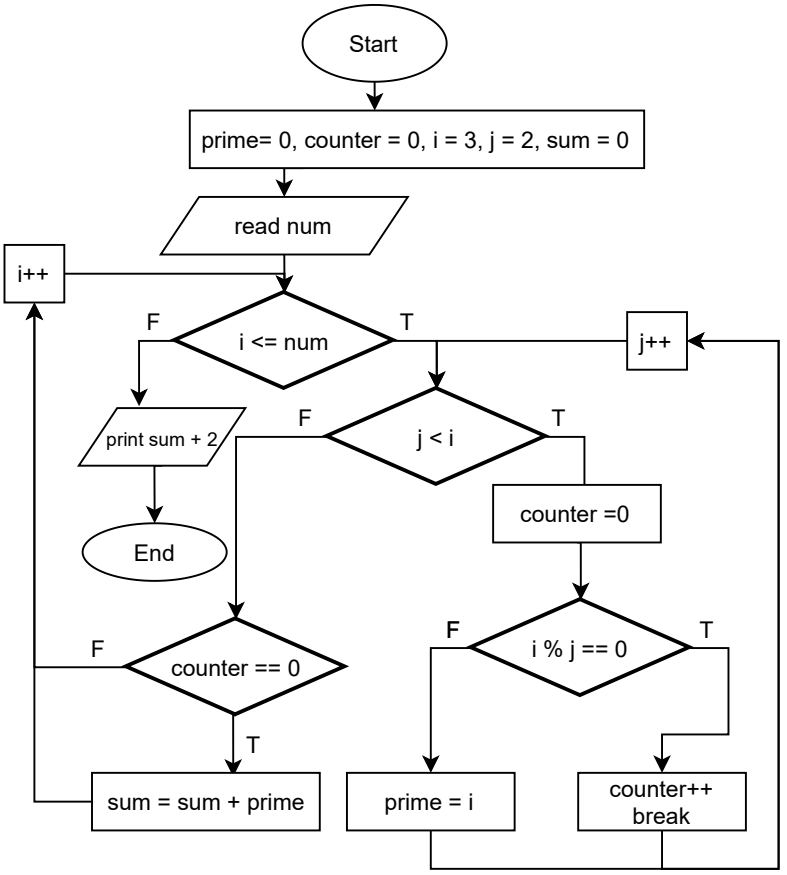
5. Write an algorithm and draw a flowchart to calculate 2^4.



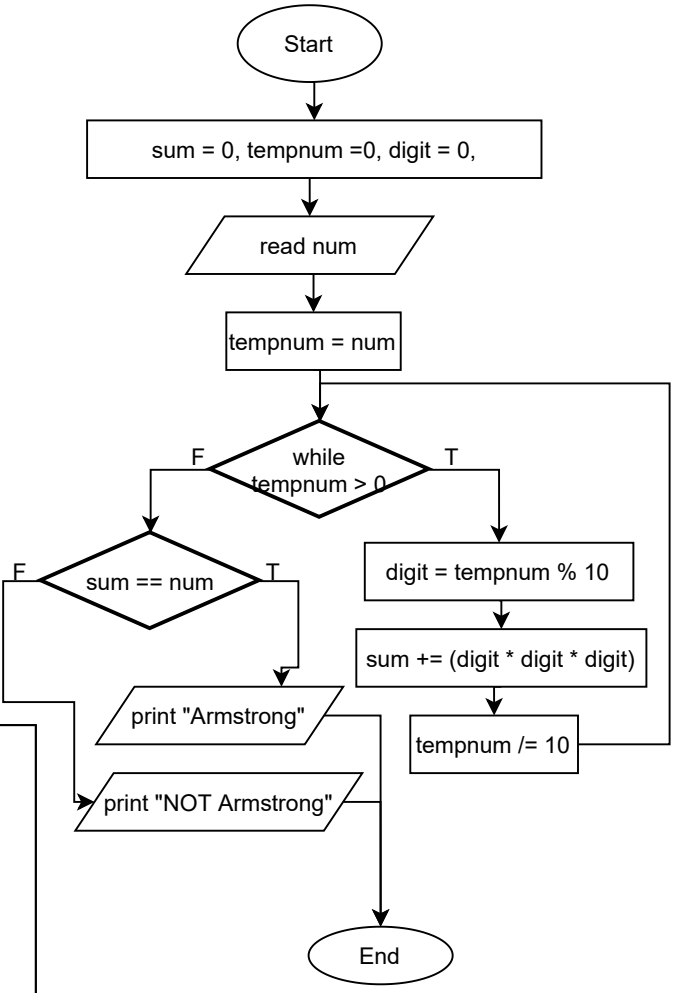
6. Draw a flow chart to find LCM of two numbers.



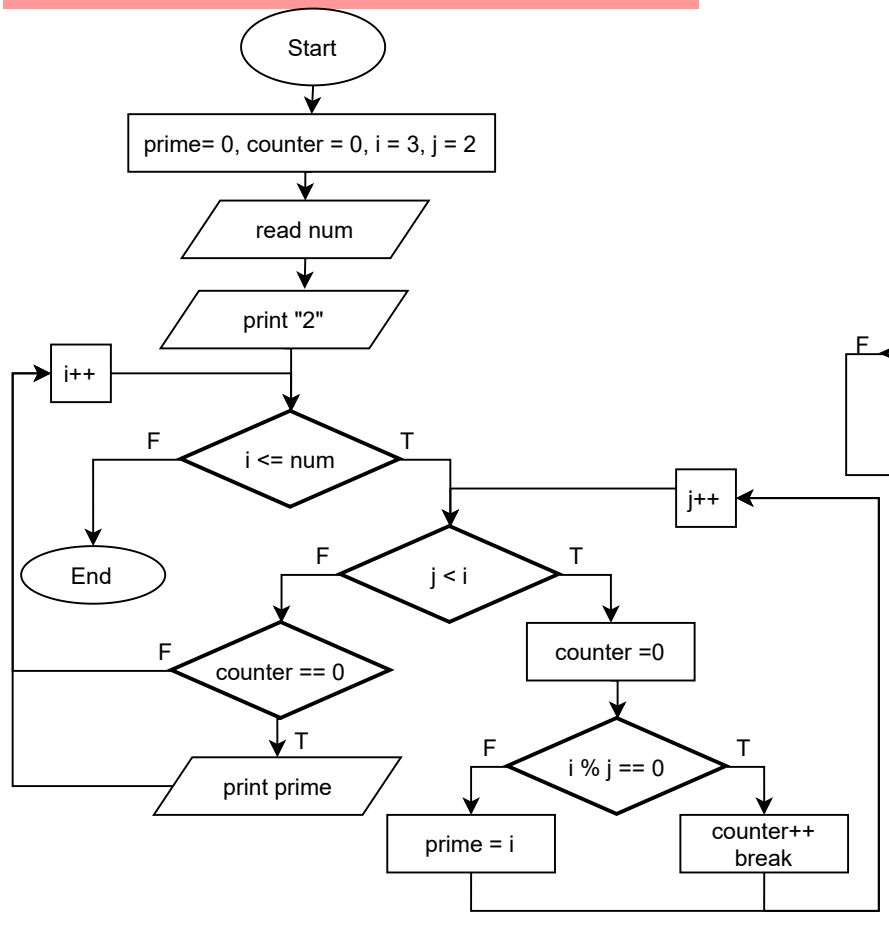
8. Draw a flow chart to find sum of all prime numbers between 1 to n.



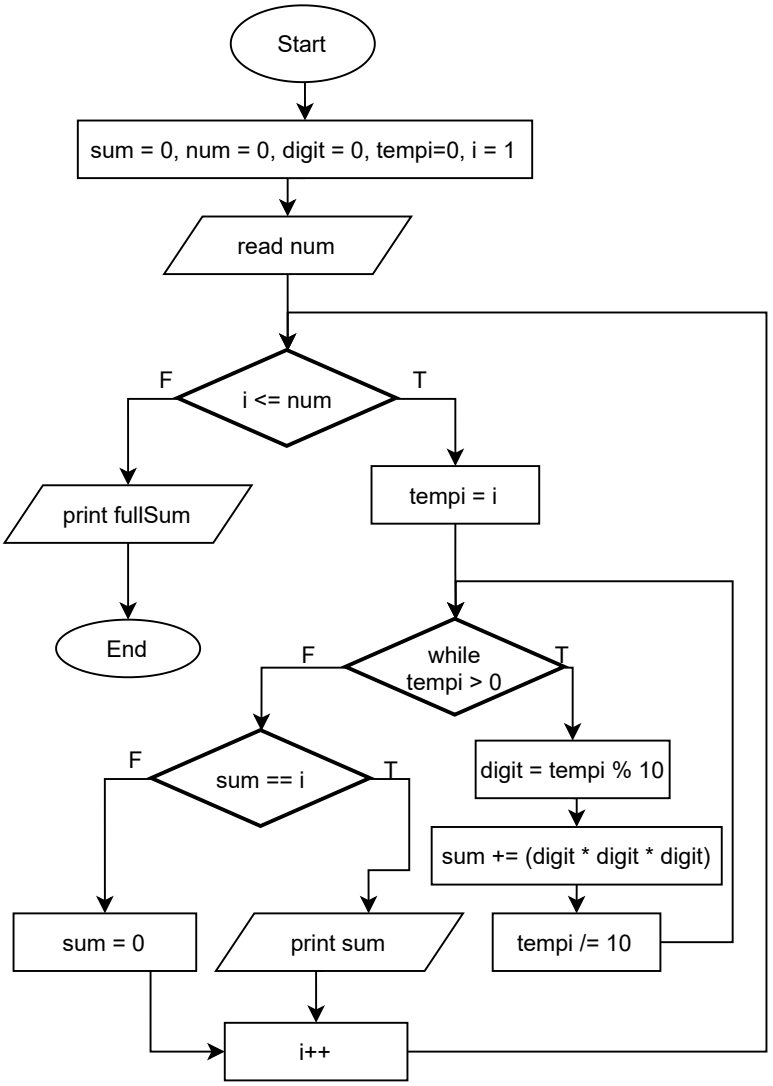
9. Draw a flow chart to check whether a number is Armstrong number or not.



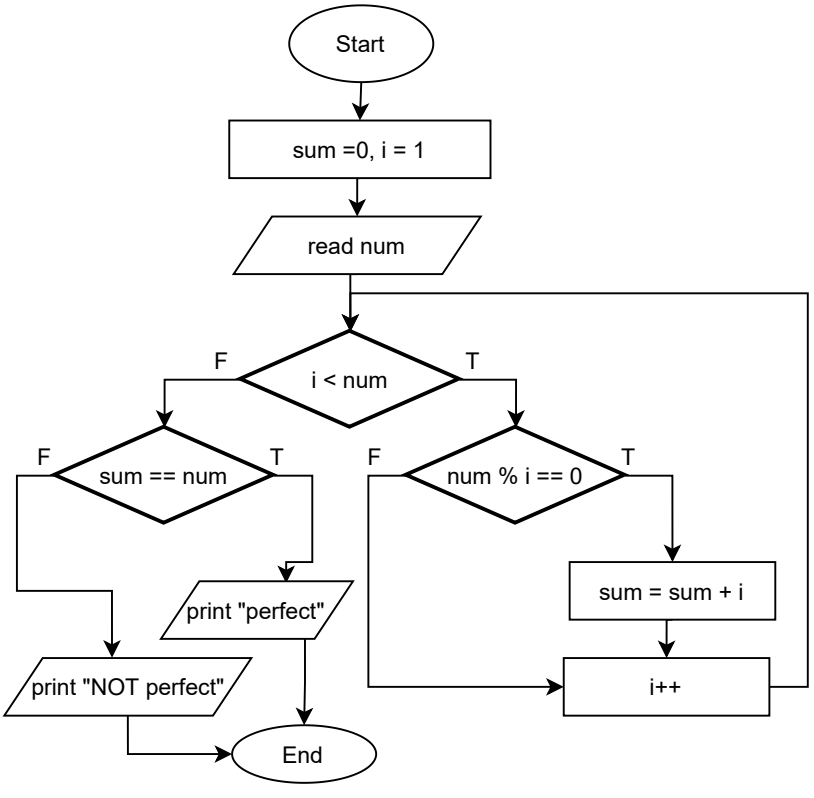
7. Draw a flow chart to print all Prime numbers between 1 to n.



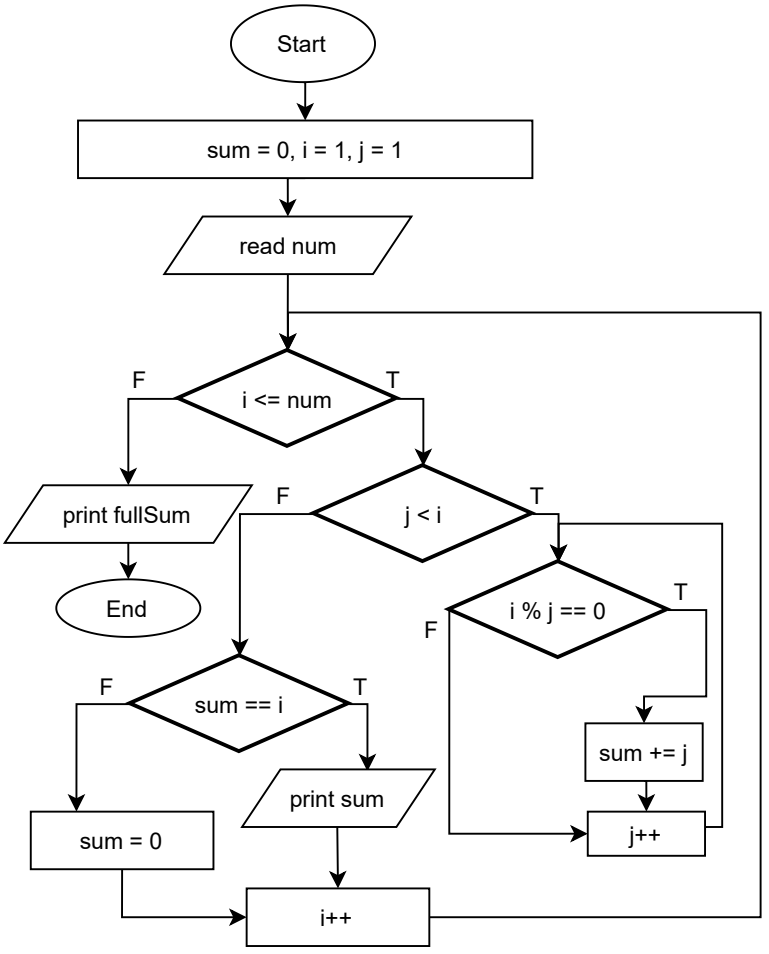
10. Draw a flow chart to print all Armstrong numbers between 1 to n(and the sum of them).



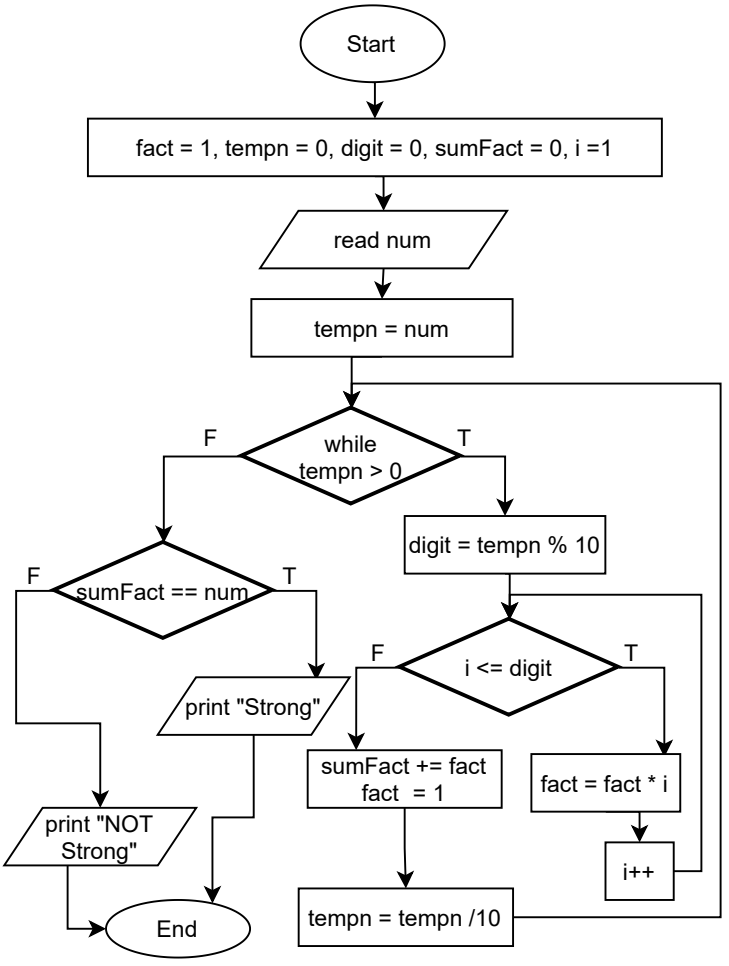
11. Draw a flow chart to check whether a number is Perfect number or not.



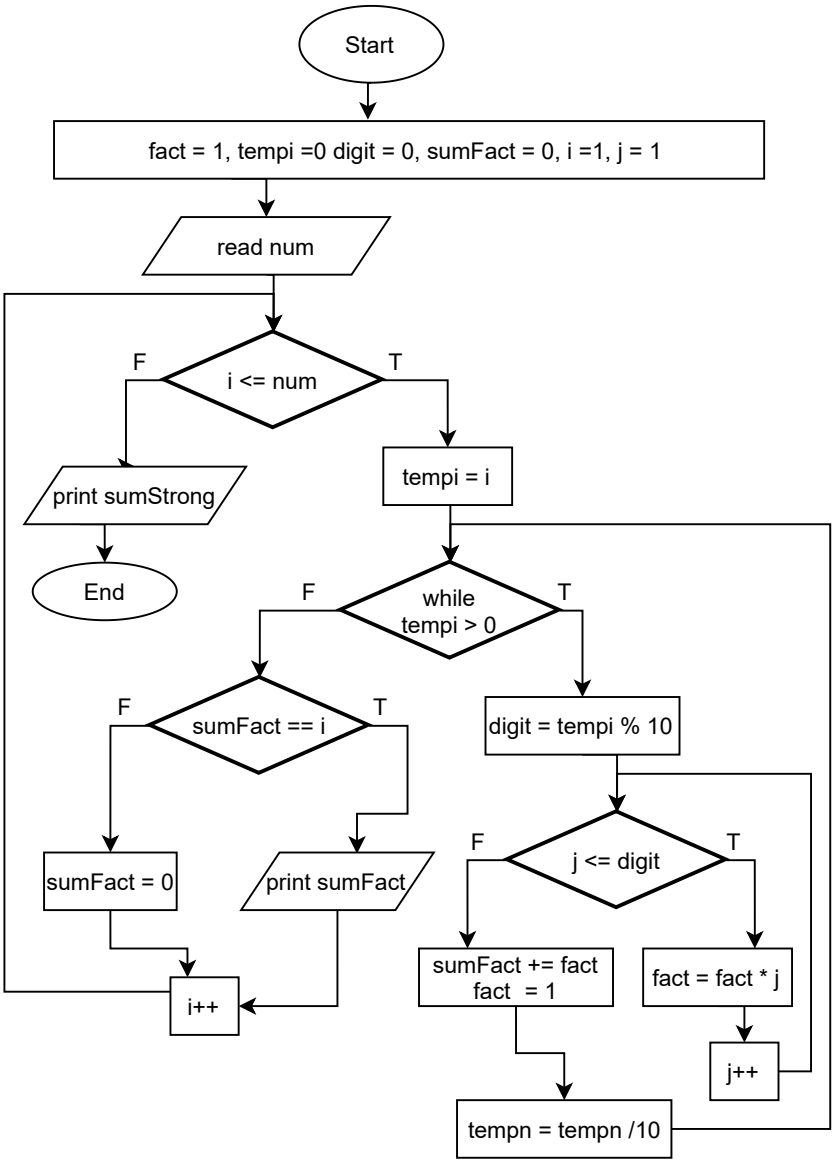
12. Draw a flow chart to print all Perfect numbers between 1 to n (and the sum of them).



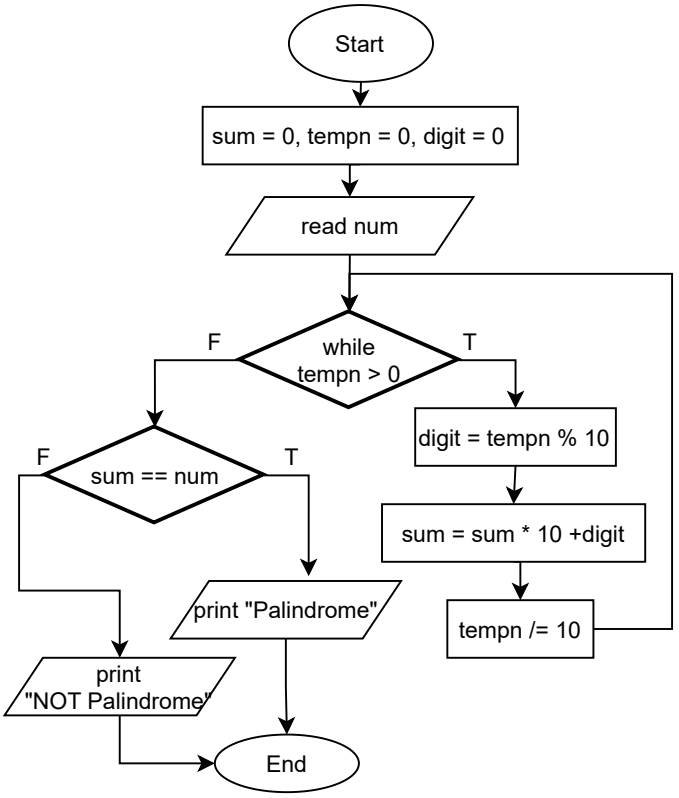
13. Draw a flow chart to check whether a number is Strong number or not.



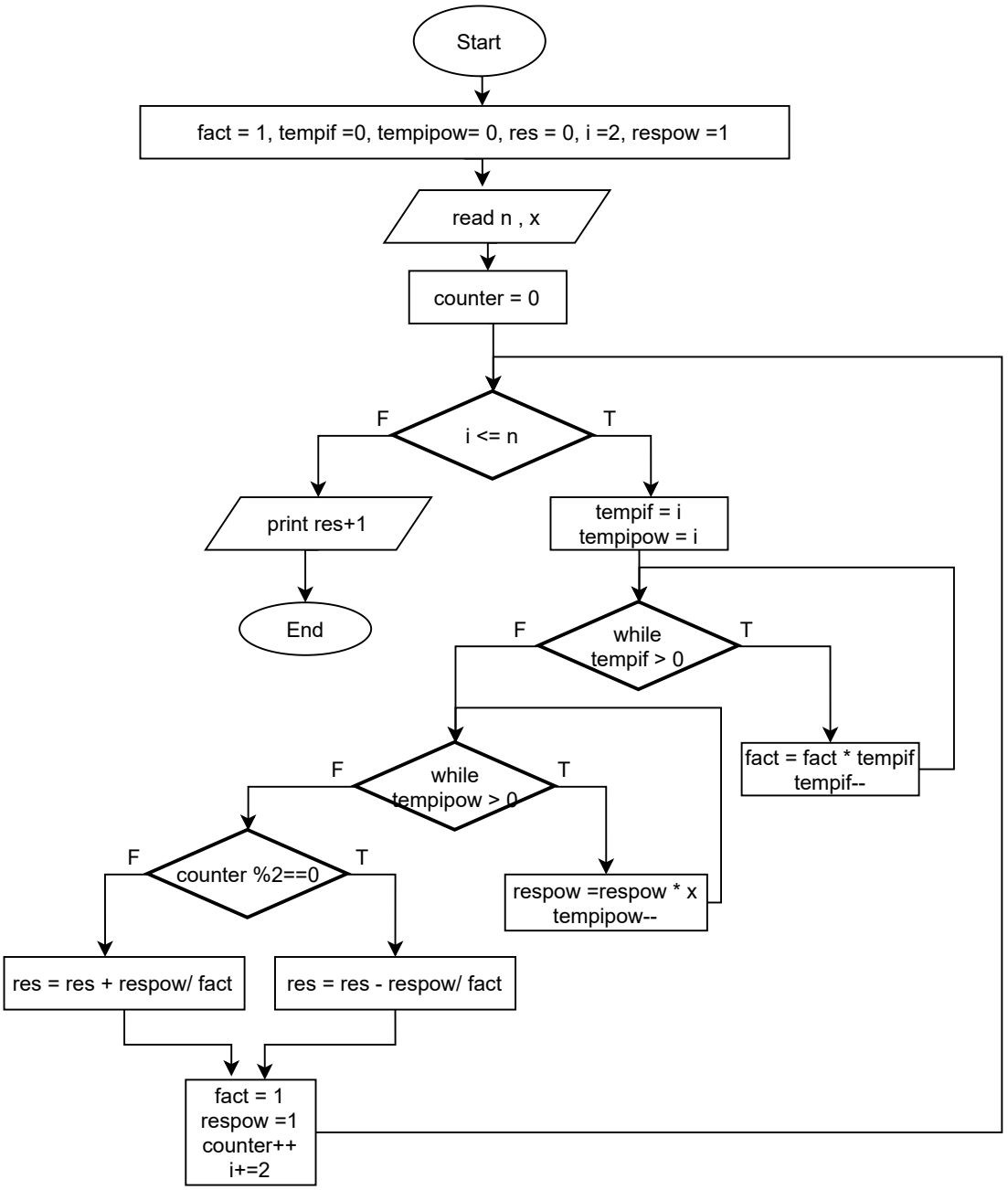
14. Draw a flow chart to print all Strong numbers between 1 to n.



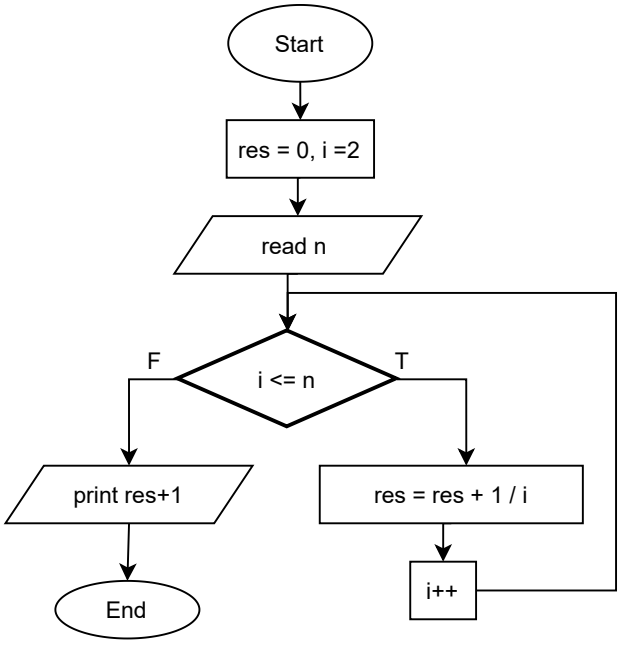
15. Draw a flow chart to check Whether a Number is Palindrome or Not



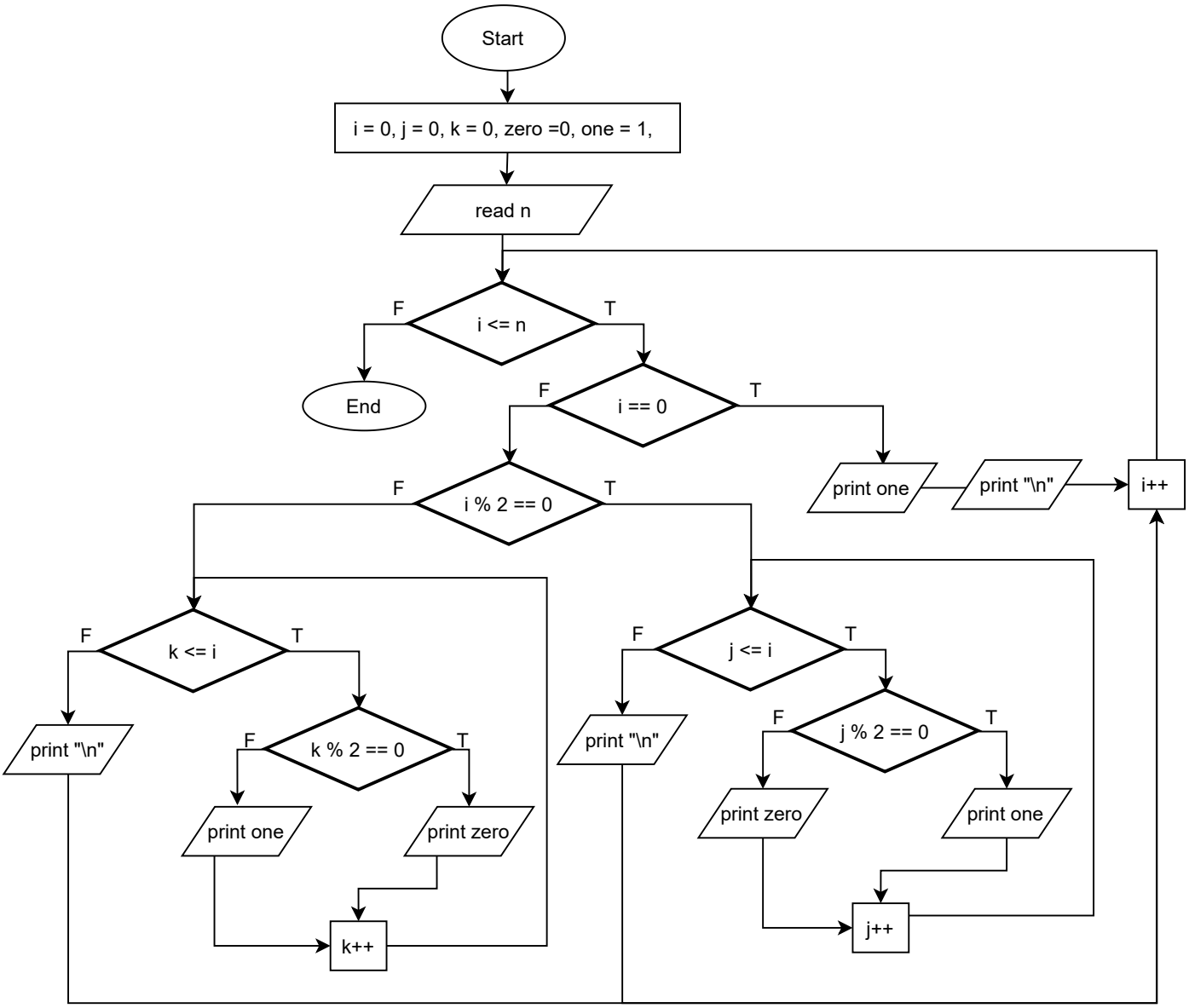
16. Draw a flow chart to find the sum of the series [1-X^2/2!+X^4/4!-..].



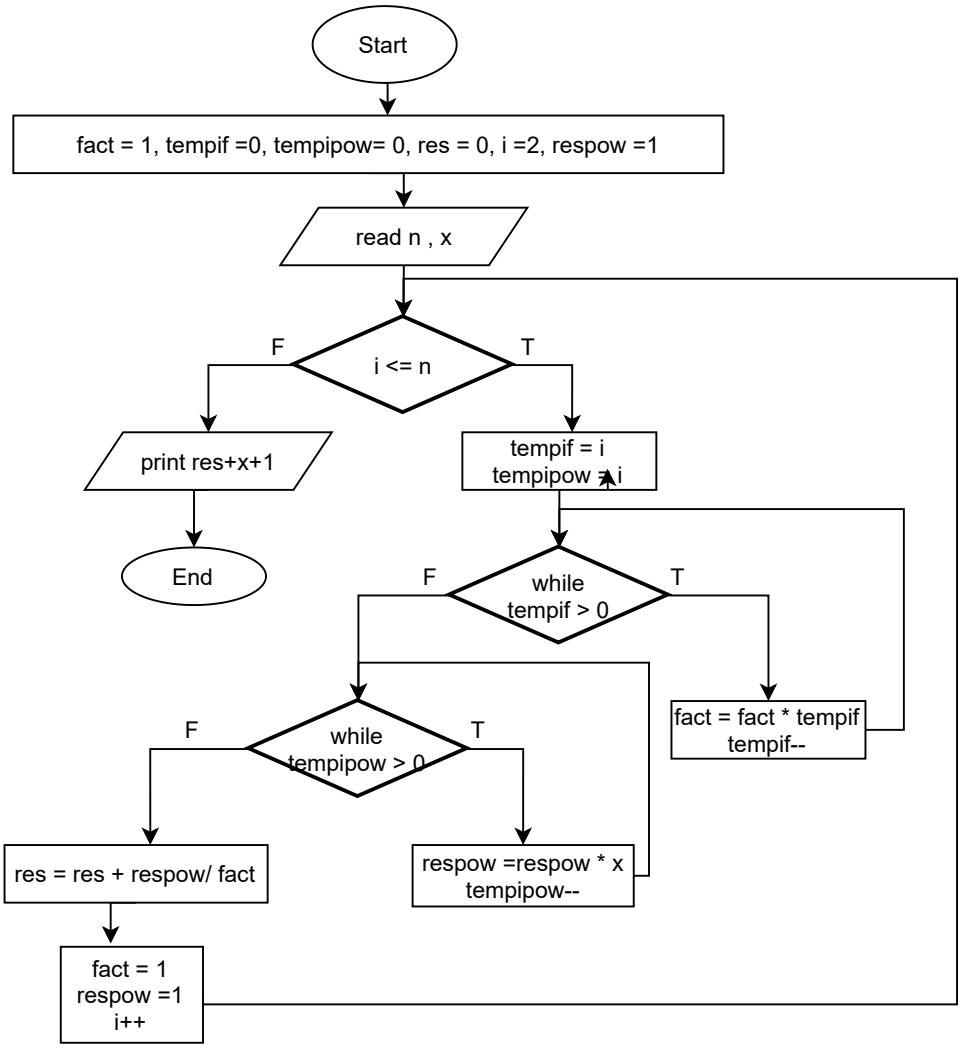
17. Draw a flow chart to display the n terms of harmonic series and their sum. (1 + 1/2 + 1/3 + 1/4 + 1/5 ... 1/n terms)



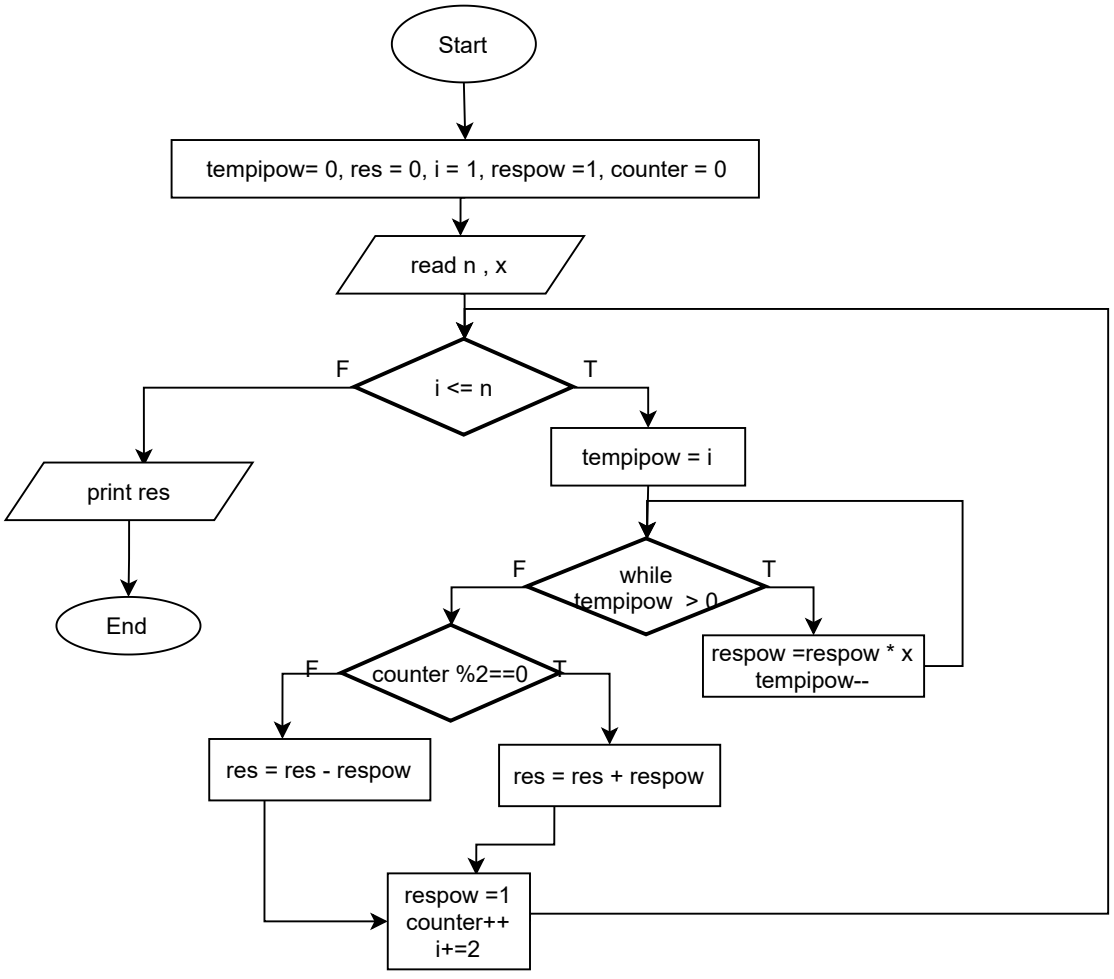
18. Draw a flow chart to print the Floyd's Triangle.
1
01
101
0101
10101



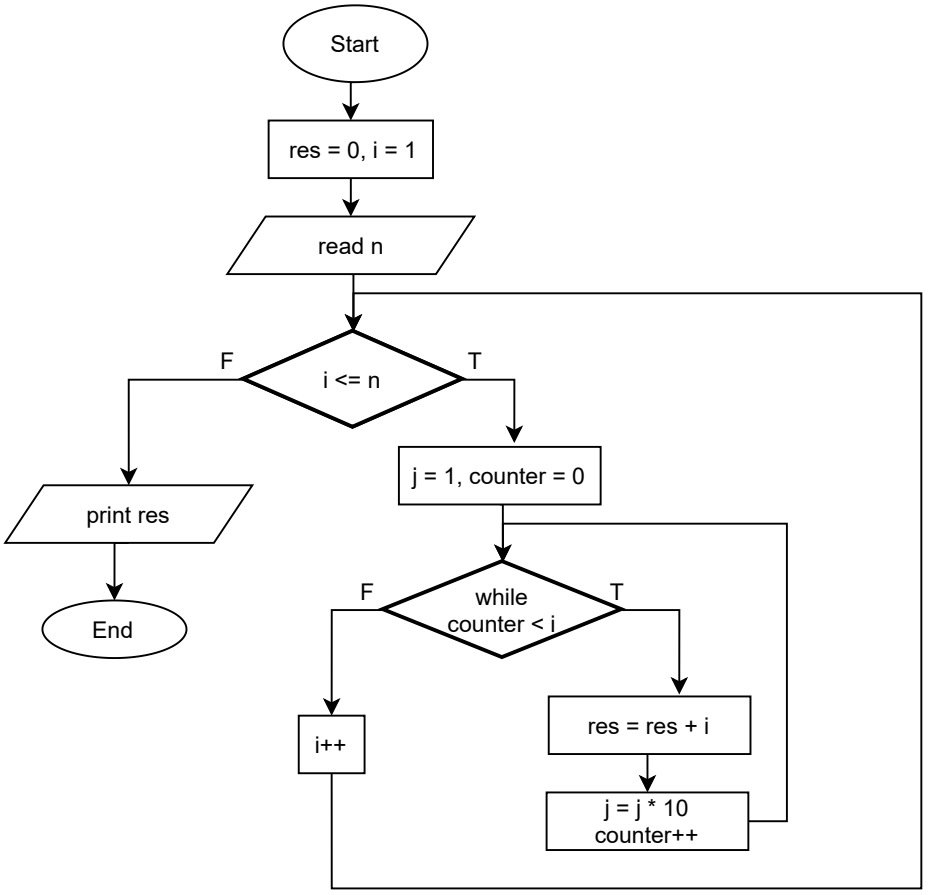
19. Draw a flow chart to display the sum of the series [1+x+x^2/2!+x^3/3!+....].



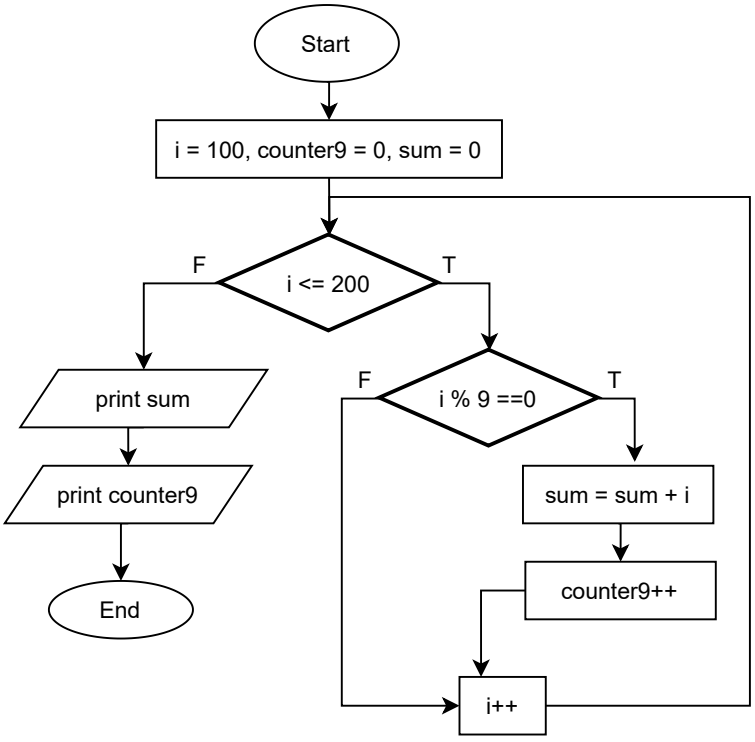
20. Draw a flow chart to find the sum of the series [x - x^3 + x^5 + ...].



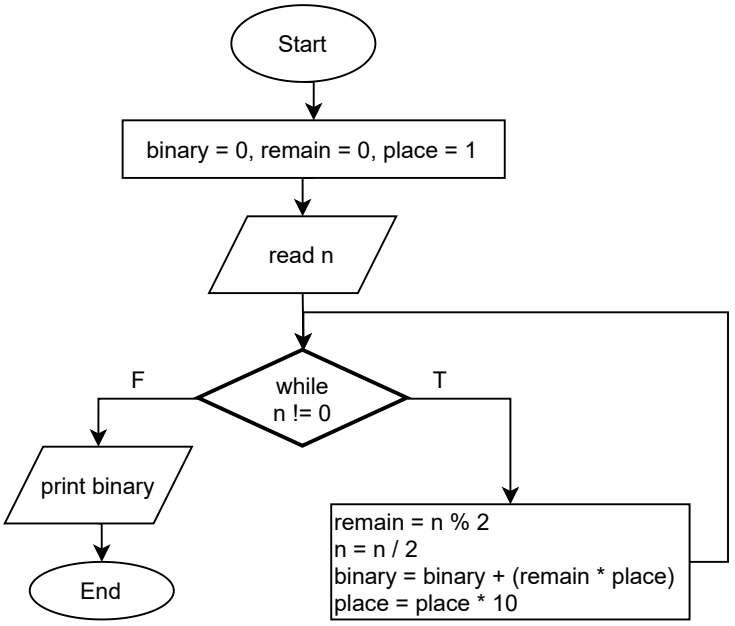
21. Draw a flow chart to find the sum of the series 1 +11 + 111 + 1111 + .. n terms



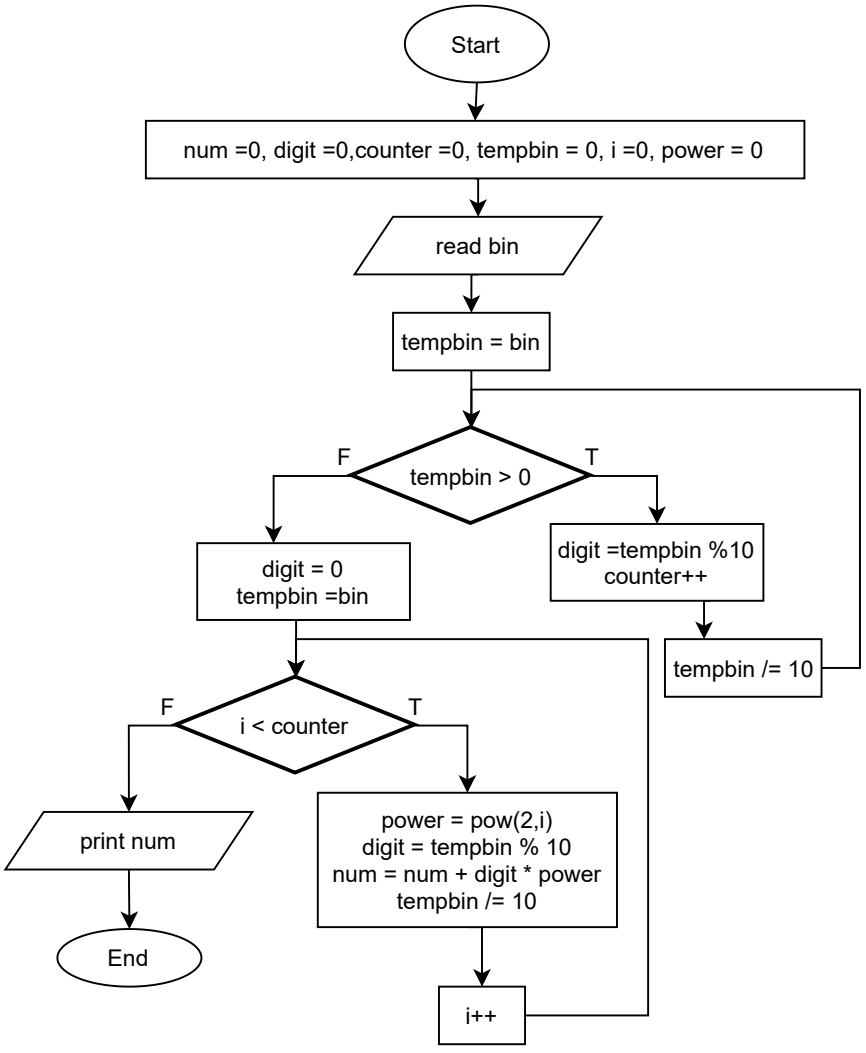
22. Draw a flow chart to find the number and sum of all integer between 100 and 200 which are divisible by 9.



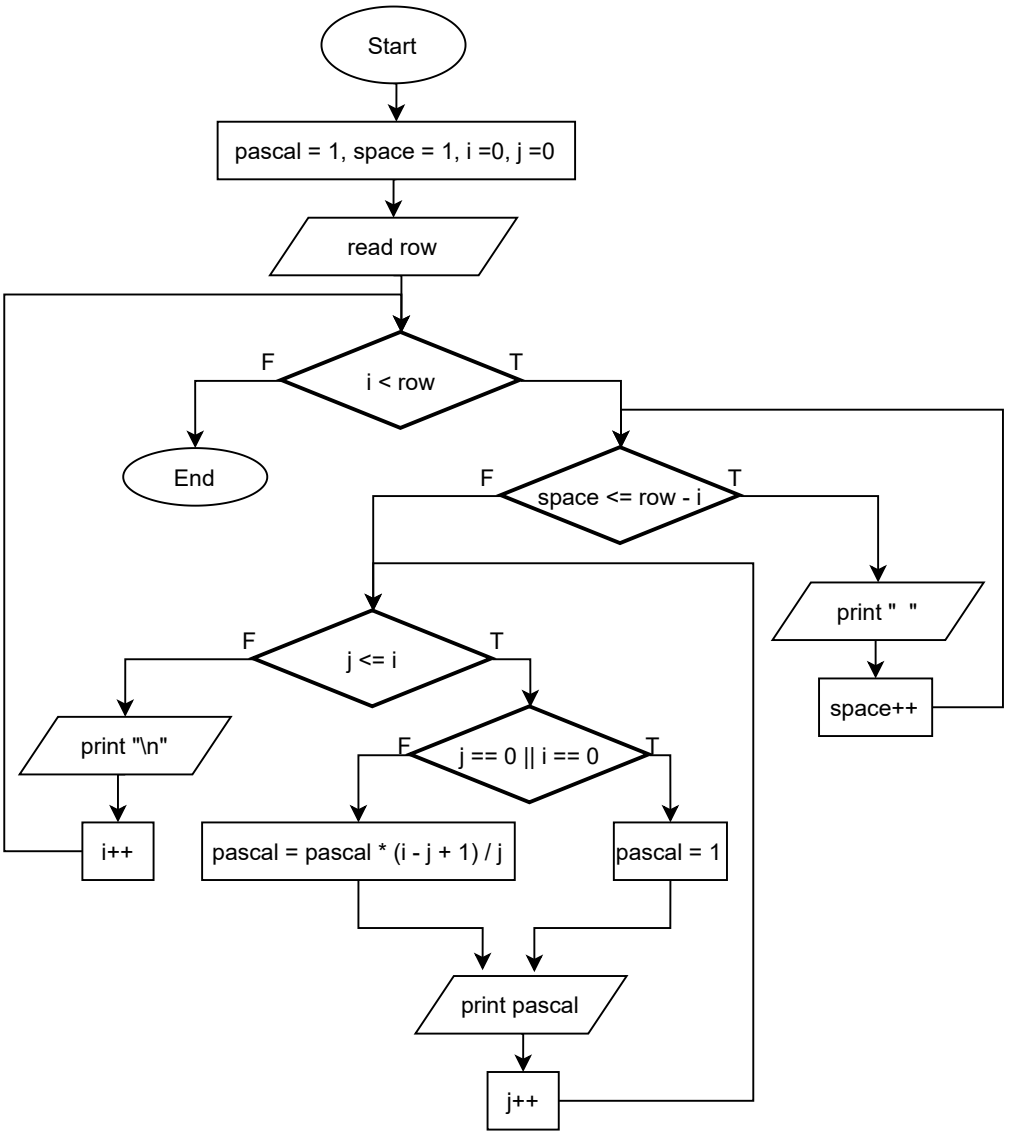
23. Draw a flow chart to convert a decimal number into binary without using an array.



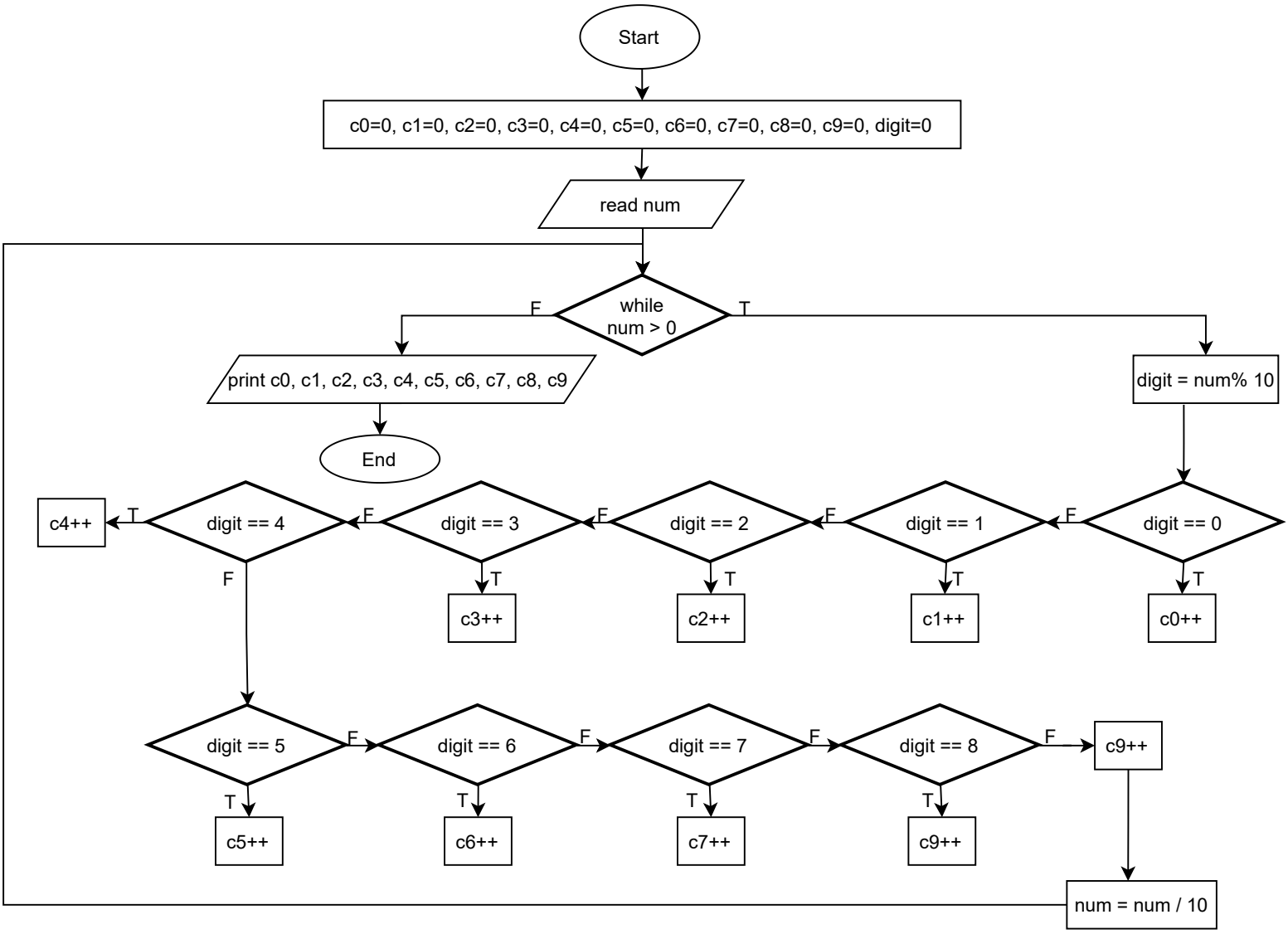
24. Draw a flow chart to convert a binary number into a decimal number without using array, function and while loop.



25. Draw a flow chart to print Pascal triangle upto n rows.



24. Draw a flow chart to find frequency of each digit in a given integer (from homework 1)



codes

1. Write C code to add two numbers entered by user.

```c
#include <stdio.h>
int main() {

int x, y;
printf("Enter the first number :\n");
scanf ("%d", &x);
printf("\nEnter the second number :\n");
scanf ("%d", &y);
printf ("The result is : %d\n", x+y);
   return 0;
}
```

2. Calculate the area of a circle with given radius.

```c
#include <stdio.h>
int main() {

float r, pi = 3.14, area = 0;
printf("Enter the radius of the circle :\n");
scanf ("%f", &r);
area = pi * r * r;

printf ("\nThe result is : %.2f\n", area);
   return 0;
}
```

3. Determine and Output Whether Number N is Even or Odd.

```c
#include <stdio.h>
int main() {

int n;
printf("Enter a number :\n");
scanf ("%d", &n);
if (n % 2 == 0)
{
  printf ("\nThe number is EVEN");
} else {
  printf ("\nThe number is ODD");
}
 return 0;
}
```

4. Determine Whether a Temperature is Below or Above the Freezing Point.

```c
#include <stdio.h>
int main() {

int temp;
printf("Enter the temperature :\n");
scanf ("%d", &temp);
if (temp <=0)
{
  printf ("\nthe temperature is BELOW the freezing point");
} else {
  printf ("\nthe temperature is ABOVE the freezing point");
}
 return 0;
}
```

5. Convert Temperature from Fahrenheit (℉) to Celsius (℃).

```c
#include <stdio.h>
int main() {

float ConvertCelsius = 0, f;
printf("Enter the temperature by Fahrenheit :\n");
scanf ("%f", &f);
ConvertCelsius = (f - 32) / 1.8;
printf ("\nthe temperature by Celsius is : %.2f", ConvertCelsius);

 return 0;
}
```

6. Write C code to convert the length in feet to centimeter.

```c
#include <stdio.h>
int main() {

float convertCM = 0, feet;
printf("Enter the length by feet :\n");
scanf ("%f", &feet);
convertCM = feet * 30.48;
printf ("\nthe length by CM is : %.2f", convertCM);

 return 0;
}
```

7. Write C code to print the square of all numbers from 1 to10.

```c
#include <stdio.h>
int main() {

for (int i = 1; i <= 10; i++)
{
  printf ("%d\n", i*i);
}
 return 0;
}
```

8. Write C code to print the SUM of numbers from LOW to HIGH. Test with LOW=3 and HIGH=9.

```c
#include <stdio.h>
int main() {
int HIGH = 9, sum = 0;

for (int LOW = 3; LOW <= HIGH; LOW++)
{
  sum = sum + LOW;
}
printf ("%d\n", sum);
 return 0;
}
```

9. Write C code to print all numbers between LOW and HIGH that are divisible by NUMBER.

```c
#include <stdio.h>
int main() {
int HIGH, LOW, NUMBER;
printf ("Enter the HIGH : \n");
scanf ("%d", &HIGH);
printf ("Enter the LOW : \n");
scanf ("%d", &LOW);
printf ("Enter the NUMBER : \n");
scanf ("%d", &NUMBER);
printf ("The numbers between LOW and HIGH that are divisible by NUMBER :\n");
for (LOW ; LOW <= HIGH; LOW++)
{
  if (LOW % NUMBER == 0)
  {
    printf ("%d\n", LOW);
  }
}
 return 0;
}
```

10. Write C code to find the largest of three numbers A, B, and C.

```c
#include <stdio.h>
int main() {
int a, b , c;
printf("enter the first number:\n");
scanf ("%d",&a);
printf("enter the second number:\n");
scanf ("%d",&b);
printf("enter the third number:\n");
scanf ("%d",&c);

if (a>b)
{
  if (a>c)
    printf ("the largest number is: %d", a);
  else
  {
    if (c>b)
      printf ("the largest number is: %d", c);
  }
}
else
{
  if (b>c)
    printf ("the largest number is: %d", b);
  else
  {
    if(c>a)
      printf ("the largest number is: %d", c);
  }
}
 return 0;
}
```

11. Write C code for a program that reads 10 numbers from the user and prints out their sum, and their product.

```c
#include <stdio.h>
int main() {
int sum = 0, n;

for (int i = 0; i < 10; i++)
{
  printf("Enter a number : \n");
  scanf ("%d", &n);
  sum = sum + n;
}
printf("The sum of your entered number is : %d", sum);

 return 0;
}
```

12. Write C code to count and print all numbers from LOW to HIGH by steps of STEP. Test with LOW=0 and HIGH=100 and STEP=5.

```c
#include <stdio.h>
int main() {
int LOW =0 , HIGH = 100, STEP = 5, counter=0;
while (LOW <= HIGH)
{
  printf ("%d\n", LOW);
  LOW = LOW + STEP;
  counter++;
}
printf ("%d", counter);
 return 0;
}
```

13. Write C code to print the multiplication table for 6's.

```c
#include <stdio.h>
int main() {
int result = 0;
for (int i = 0; i <= 10; i++)
{
  result = i*6;
  printf ("%d x 6 = %d\n",i,result);
}
 return 0;
}
```

14. Write C code for computing factorial N (N!).

```c
#include <stdio.h>
int main() {
int n, result = 1;
scanf ("%d", &n);
for (int i = 1; i <= n; i++)
{
  result = result * i;
}
printf ("%d! = %d\n",n,result);
 return 0;
}
```

15. Write C code to print all natural numbers in reverse (from n to 1).

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

16. Write C code which generates even numbers between 1000 and 2000 and then prints them in the standard output. It should also print total sum.

```c
#include <stdio.h>
int main() {
int sum, counter = 1000;

while (counter <= 2000)
{
  printf ("%d\n",counter);
  sum = sum + counter;
  counter+=2;
}
printf ("the sum of all even numbers between 1000 and 2000 is : %d\n",sum);
 return 0;
}
```

17. Write C code with a natural number, n, as its input which calculates the following formula and writes the result in the standard output: S = ½ + ¼ + … +1/n.

```c
#include <stdio.h>
int main() {
float n, result = 0, counter = 2;
scanf ("%f", &n);
printf ("S = ");
while (counter <= n)
{
  if (counter ==  n)
  printf ("1/%.1f",counter);
  else
  printf ("1/%.1f + ",counter);
  result = result + 1/counter;
  counter+=2;
}
printf (" = %.2f\n",result);
 return 0;
}
```

18. Write C code to convert a decimal number, n, to binary format?

```c
#include <stdio.h>
int main() {
int binary = 0, remain = 0, place = 1,n;
printf ("Enter a decimal namber :\n");
scanf ("%d",&n);
while ( n != 0 )
{
  remain = n % 2;
  n = n / 2;
  binary = binary + (remain * place);
  place = place * 10;
}
printf ("the binary number is : %d", binary);
 return 0;
}
```

19. Write C code to print multiplication table of any number.

```c
#include <stdio.h>
int main() {
int result = 0, n;
printf ("Enter a number to to print multiplication table of it\n");
scanf ("%d", &n);
for (int i = 0; i <= 10; i++)
{
  result = i*n;
  printf ("%d x %d = %d\n",i,n,result);
}
 return 0;
}
```

20. Write C code to count number of digits in a number.

```c
#include <stdio.h>
int main() {
int counter = 0,n;
printf ("Enter a number\n");
scanf ("%d", &n);
while (n!=0){
 n = n /10;
 counter++;
}
printf ("The number of digits in a number that writen is : %d", counter);
 return 0;
}
```

21. Write C code to find first and last digit of a number.

```c
#include <stdio.h>
int main() {
int n, firstD = 0, lastD = 0;
printf ("Enter a number : \n");
scanf ("%d", &n);
lastD = n % 10;
firstD = n;
while (firstD >= 10)
{
  firstD = firstD /10;
}
printf ("The first number is : %d", firstD);
printf ("\nThe last number is : %d", lastD);
 return 0;
}
```

22. Write C code to swap first and last digits of a number.

```c
#include<stdio.h>
#include<conio.h>
int main()
{
  int num, rem, temp, rev=0, noOfDigit=0, noOfDigitTemp, revNum, remTemp;
  printf("Enter the Number: ");
  scanf("%d", &num);
  temp = num;
  while(temp>0)
  {
    temp = temp/10;
    noOfDigit++;
  }
  if(noOfDigit>=2)
  {
    temp = num;
    while(temp>0)
    {
      rem = temp%10;
      rev = (rev*10)+rem;
      temp = temp/10;
    }
    revNum = rev;
    rev = 0;
    temp = num;
    noOfDigitTemp = noOfDigit;
    while(temp>0)
    {
      remTemp = revNum%10;
      if(noOfDigitTemp==noOfDigit)
      {
        rem = temp%10;
        rev = (rev*10)+rem;
      }
      else if(noOfDigitTemp==1)
      {
       rem = temp%10;
       rev = (rev*10)+rem;
      }
      else
      {
        rev = (rev*10)+remTemp;
      }
      temp = temp/10;
      revNum = revNum/10;
      noOfDigitTemp--;
    }
    printf("\nNew Number = %d", rev);
  } else {
    printf("\nIt's a single-digit number.");
  }
    return 0;
}
```

23. Write C code to check whether a number is palindrome or not.

```c
#include<stdio.h>
#include<conio.h>
int main()
{
  int digit= 0, sum =0, originalNum = 0, num;
  printf("Enter the Number: ");
  scanf("%d", &num);
  originalNum = num;
  while (num>0)
  {
    digit = num % 10;
    sum = (sum* 10) + digit;
    num = num / 10;
  }
  if (sum == originalNum)
  {
   printf("\nthe number is palindrome");
  } else {
    printf("\nthe number is NOT palindrome");
  }
    return 0;
}
```

24. Write C code to find frequency of each digit in a given integer.

```c
#include <stdio.h>
int main() {
  int c0 = 0, c1=0, c2=0, c3=0, c4=0, c5=0, c6=0, c7=0, c8=0, c9=0, num, digit = 0;
  printf("Enter a number : ");
  scanf ("%d",&num);
  while (num > 0)
  {
    digit = num % 10;
    if (digit == 0)
      c0++;
    else if (digit == 1)
      c1++;
    else if (digit == 2)
      c2++;
    else if (digit == 3)
      c3++;
    else if (digit == 4)
      c4++;
    else if (digit == 5)
      c5++;
    else if (digit == 6)
      c6++;
    else if (digit == 7)
      c7++;
    else if (digit == 8)
      c8++;
    else
```

```
      c1++;
    num = num /10;
  }
  printf ("\nthe nember contines of 0 : %d", c0);
  printf ("\nthe nember contines of 1 : %d", c1);
  printf ("\nthe nember contines of 2 : %d", c2);
  printf ("\nthe nember contines of 3 : %d", c3);
  printf ("\nthe nember contines of 4 : %d", c4);
  printf ("\nthe nember contines of 5 : %d", c5);
  printf ("\nthe nember contines of 6 : %d", c6);
  printf ("\nthe nember contines of 7 : %d", c7);
  printf ("\nthe nember contines of 8 : %d", c8);
  printf ("\nthe nember contines of 9 : %d", c9);
   return 0;
}
```

25. Write C code to find HCF (Highest Common Factor) of two numbers.

```
#include <stdio.h>
#include <math.h>
int main()
{
  int x, y, k;
  printf("Enter the first number :\n");
  scanf("%d", &x);
  printf("Enter the second number :\n");
  scanf("%d", &y);
  k = x%y;
  while (k!=0)
  {
    x=y;
    y=k;
    k=x%y;
  }
  printf("The HCF (Highest Common Factor) of your numbers is : %d",y);
  return 0;
}
```

1. Write C code that will read the two sides of a rectangle and calculate its area and perimeter.

```c
#include <stdio.h>
#include <math.h>
int main()
{
  int area = 0, perimeter = 0, height, width;
  printf("Enter the height :\n");
  scanf("%d", &height);
  printf("Enter the width :\n");
  scanf("%d", &width);
  area = height * width;
  perimeter = (height +width) * 2;
  printf("The area is : \n%d",area);
  printf("\nThe perimeter is : \n%d",perimeter);
  return 0;
}
```

2. Write C code to find all the roots of a quadratic equation ax2+bx+c=0.

```c
#include <stdio.h>
#include <math.h>
int main()
{
  int delta = 0, a, b, c, root, root1, root2;
  printf("Enter a :\n");
  scanf("%d", &a);
  printf("Enter b :\n");
  scanf("%d", &b);
  printf("Enter c :\n");
  scanf("%d", &c);
  delta = (b * b) - (4 * a * c);
  if (delta == 0)
  {
    root = -b / (2 * a);
    printf("The root is : \n%d",root);
  }else if (delta > 0)
  {
    root1 = (-b - sqrt (delta)) / (2*a);
    root2 = (-b + sqrt (delta)) / (2*a);
    printf("The first root is : \n%d",root1);
    printf("\nThe second root is : \n%d",root2);
  } else {
    printf("\n THERE IS NO SOLUTIONS");
  }
  return 0;
}
```

3. Print Hello World 10 times

```c
#include <stdio.h>
int main()
{
  for (int i = 1; i <= 10; i++)
  {
    printf ("Hello World\n");
  }
  return 0;
}
```

4. Write C code to find the sum of the first 50 natural numbers

```c
#include <stdio.h>
int main()
{
  int sum = 0;
  for (int i = 1; i <= 50; i++)
  {
    sum = sum + i;
  }
  printf("the sum of number from 1 to 50 is : %d", sum);
  return 0;
}
```

5. Write C code to calculate 2^4

```c
#include <stdio.h>
int main()
{
  int x = 2;
  for (int i = 1; i < 4; i++)
  {
    x = x*2;
  }
  printf("the result is : %d", x);
  return 0;
}
```

6. Write C code to find LCM of two numbers.

```c
#include<stdio.h>

int main()
{
  int x, y, lcm, result;
  printf ("Enter the first number :\n");
  scanf ("%d", &x);
  printf ("Enter the second number :\n");
  scanf ("%d", &y);
  if (x>y)
    lcm = x;
  else
    lcm = y;
```

```
  for (int i = lcm; i <= (x*y); i++)
  {
    if (i%x==0 && i%y==0)
    {
      result =i;
      break;
    }
  }
  printf ("the LCM is : %d\n",result);
  return 0;
}
```

7. Write C code to print all Prime numbers between 1 to n.

```
#include <stdio.h>
int main(){
int num, prime, counter = 0;
printf ("Enter a number\n");
scanf ("%d", &num);
printf ("2\t");
for (int i = 3; i <= num; i++)
{
  for (int j = 2; j < i; j++)
  {
    counter =0;
    if (i % j == 0)
    {
      counter++;
      break;
    }
    else
    {
      prime = i;
    }
  }
  if (counter == 0)
  {
    printf ("%d\t", prime);
  }
}
return 0;
}
```

8. Write C code to find sum of all prime numbers between 1 to n.

```c
#include <stdio.h>
int main(){
int num, prime = 0, counter = 0, sum =0;
printf ("Enter n number\n");
scanf ("%d", &num);
for (int i = 3; i <= num; i++)
{
  for (int j = 2; j < i; j++)
  {
    counter =0;
    if (i % j == 0)
    {
      counter++;
      break;
    }
    else
    {
      prime = i;
    }
  }
  if (counter == 0)
  {
    sum = sum + prime;
  }
}
printf ("the sum of all prime numbers between 1 to n is : %d\t", sum+2);
return 0;
}
```

9. Write C code to check whether a number is Armstrong number or not.

```c
#include<stdio.h>
#include <math.h>
int main(){
int num, digit, tempnum, sum;
printf ("Enter a number\n");
scanf ("%d", &num);
tempnum = num;
while (num>0)
{
  digit = num%10;
  sum = sum + (digit* digit *digit);
  num = num/10;
}
if (sum == tempnum)
  {
    printf("\nthe number is Armstrong");
  } else {
    printf("\nthe number is not Armstrong");
  }
  return 0;
}
```

10. Write C code to print all Armstrong numbers between 1 to n I(and the sum of them)

```c
#include<stdio.h>
int main(){
    int num, digit, tempnum, sum,tempi, fullsum = 0;
    printf("Enter a number: \n");
    scanf ("%d", &num);
    printf("\nthe  Armstrong numbers are :");
    for (int i = 1; i <= num; i++)
    {
        tempi = i;
        while (tempi>0)
        {
            digit = tempi%10;
            sum = sum + (digit * digit * digit);
            tempi = tempi/10;
        }
        if (sum == i)
        {
            printf("%d\t", sum);
            fullsum = fullsum +sum;
        }
        sum = 0;
    }
    printf("\nthe sum of Armstrong numbers is : %d", fullsum);
   return 0;
}
```

11. Write C code to check whether a number is Perfect number or not

```c
#include<stdio.h>
int main(){
    int num, sum = 0;
    printf ("Enter a number :");
    scanf ("%d", &num);
    for (int i = 1; i < num; i++)
    {
        if (num % i == 0){
            sum = sum +i;
        }
    }
    if (sum == num){
        printf ("\nthe number is perfect");
    } else {
        printf ("\nthe number is NOT perfect");
    }
   return 0;
}
```

12. Write C code to print all Perfect numbers between 1 to n. (and the sum of them)

```c
#include<stdio.h>
int main(){
int num, sum = 0, fullsum;
printf ("Enter a number :");
scanf ("%d", &num);
printf ("the perfect numbers are :\n");
for (int i = 1; i <= num; i++)
{
  for (int j = 1; j < i; j++)
  {
    if (i % j == 0)
    {
      sum = sum +j;
    }
  }
  if (sum == i)
  {
    printf ("%d\t", sum);
    fullsum = fullsum + sum;
  }
  sum = 0;
}
printf ("\nthe sum of perfect numbers is : %d\t",fullsum);
return 0;
}
```

13. Write C code to check whether a number is Strong number or not.

```c
#include<stdio.h>
int main(){
int num, fact = 1, tempn, digit, sumFact = 0;
printf ("Enter a number : \n");
scanf ("%d", &num);
tempn = num;
while (tempn>0)
{
  digit = tempn % 10;
  for (int i = 1; i <= digit; i++)
  {
    fact = fact * i;
  }
  sumFact =sumFact + fact;
  tempn = tempn /10;
  fact = 1;
}
if (sumFact == num){
  printf("\n strong");
} else {
  printf ("Not strong");
}
return 0;
}
```

14. Write C code to print all Strong numbers between 1 to n.(and the sum of them)

```c
#include<stdio.h>
int main(){
int num, fact = 1, tempi, digit, sumFact = 0, sumStrong = 0;
printf("Enter a number:");
scanf ("%d", &num);
printf("\n the strong numbers are:");
for (int i = 1; i <= num; i++)
{
  tempi = i;
  while (tempi>0)
  {
    digit = tempi % 10;
    for (int j = 1; j <= digit; j++)
      {
        fact = fact * j;
      }
    sumFact =sumFact + fact;
    tempi = tempi /10;
    fact = 1;
  }
  if (sumFact == i)
  {
    printf ("%d\t", sumFact);
    sumStrong = sumStrong + sumFact;
  }
  sumFact = 0;
}
printf("\n the sum of strong numbers is:%d\t", sumStrong);
return 0;
}
```

15. Write C code to check Whether a Number is Palindrome or Not

```c
#include<stdio.h>
int main(){
int nun, top =0, tempn, digit;
printf ("Enter a number :\n");
scanf ("%d", &nun);
tempn = nun;
while (tempn > 0)
{
  digit = tempn % 10;
  top = top * 10 + digit;
  tempn = tempn / 10;
}
if (top == nun)
{
  printf ("the num is palindrome");
} else {
  printf ("the num is not palindrome");
}
return 0;
}
```

16. Write C code to find the sum of the series [1-X^2/2!+X^4/4!- .....].

```c
#include <stdio.h>
#include <math.h>
int main () {

float n, x, fact =1, tempif,tempipow, res=0,respow = 1;
int counter = 0;

printf ("if you need to found the sum of the series [ 1-X^2/2!+X^4/4!- .....].");
printf ("\nenter n number :\t");
scanf ("%f", &n);
printf ("\nenter x number :\t");
scanf ("%f", &x);

for (int i = 2; i <= n; i+=2)
{
  tempif = i;
  tempipow = i;
  while (tempif>0)
  {
    fact = fact * tempif;
    tempif--;
  }
  printf ("\nf : %f",fact);
  while (tempipow>0)
  {
    respow = respow * x;
    tempipow--;
  }
  printf ("\nressq : %f",respow);
  if (counter%2 == 0) {
    res = res - respow / fact;
  } else {
    res = res + respow / fact;
  }
  fact = 1;
  respow =1;
  counter++;
}

printf ("\nthe result is : %f\t", res+1);

return 0;
}
```

17. Write C code to display the n terms of harmonic series and their sum. (1 + 1/2 + 1/3 + 1/4 + 1/5 ... 1/n terms)

```c
#include <stdio.h>
#include <math.h>
int main () {

float res = 0, n;

printf ("if you need to found the sum of the series (1 + 1/2 + 1/3 + 1/4 + 1/5 ... 1/n terms)");
printf ("\nEnter n number : ");
scanf ("%f", &n);

for (float i = 2; i <= n; i++)
{
  res = res + 1 / i;
}

printf ("\nthe result is : %f", res+1);

return 0;
}
```

18. Write C code to print the Floyd's Triangle.

1
01
101
0101
10101

```c
#include <stdio.h>
int main () {
int n , tempi = 0, zero =0, one = 1;
printf ("print the Floyd's Triangle");
printf ("\nEnter n number : ");
scanf ("%d", &n);

for (int i = 0; i <= n; i++)
{
  tempi = i;
  if (tempi == 0)
  {
    printf ("%d", one);
  } else {
    if (tempi %2 == 0){
      for (int i = 0; i <= tempi; i++)
      {
        if (i%2==0)
        {
          printf ("%d", one);
        } else {
          printf ("%d", zero);
        }
      }
    } else {
      for (int i = 0; i <= tempi; i++)
      {
        if (i%2==0)
        {
          printf ("%d", zero);
        } else {
          printf ("%d", one);
        }
      }
    }
  }
  printf ("\n");
}
 return 0;
}
```

19. Write C code to display the sum of the series [1+x+x^2/2!+x^3/3!+....].

```c
#include <stdio.h>
#include <math.h>
int main () {

float n, x, fact =1, tempif,tempipow, res=0,respow = 1;

printf ("if you need to found the sum of the series [ 1+x+x^2/2!+x^3/3!+....].");
printf ("\nenter n number :\t");
scanf ("%f", &n);
printf ("\nenter x number :\t");
scanf ("%f", &x);

for (int i = 2; i <= n; i++)
{
  tempif = i;
  tempipow = i;
  while (tempif>0)
  {
    fact = fact * tempif;
    tempif--;
  }
  printf ("\nf : %f",fact);
  while (tempipow>0)
  {
    respow = respow * x;
    tempipow--;
  }
  printf ("\nressq : %f",respow);
  res = res + respow / fact;
  fact = 1;
  respow =1;
}
printf ("\nthe result is : %f\t", res+x+1);
return 0;
}
```

20. Draw a flow chart to find the sum of the series [x - x^3 + x^5 + ...].

```c
#include <stdio.h>

int main () {

int n, x,tempipow, res=0,respow = 1;
int counter = 0;

printf ("if you need to found the sum of the series [ x - x^3 + x^5 + ......]..");
printf ("\nenter n number :\t");
scanf ("%d", &n);
printf ("\nenter x number :\t");
scanf ("%d", &x);
```

```
for (int i = 1; i <= n; i+=2)
{
  tempipow = i;
  while (tempipow>0)
  {
    respow = respow * x;
    tempipow--;
  }
  printf ("\nressq : %d",respow);
  if (counter%2 == 0) {
    res = res + respow;
  } else {
    res = res - respow;
  }
  respow =1;
  counter++;
 }

  printf ("\nthe result is : %d\t", res);

  return 0;
}
```

21. Write C code to find the sum of the series 1 +11 + 111 + 1111 + .. n terms

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

int n, res=0;

printf ("if you need to found the sum of the series 1 +11 + 111 + 1111 + .. n terms.");
printf ("\nenter n number :\t");
scanf ("%d", &n);

for (int i = 1; i <= n; i++)
{
  int j = 1, counter = 0;
  while (counter<i)
  {
    res = res +j;
    j = j * 10;
    counter++;
  }
}
  printf ("\nthe result is : %d\t", res);

  return 0;
}
```

22. Write C code to find the number and sum of all integer between 100 and 200 which are divisible by 9.

```c
#include <stdio.h>

int main () {
int i9 = 0, sum = 0;
for (int i = 100; i <= 200; i++)
{
  if (i%9==0)
  {
    sum = sum + i;
    i9++;
  }
}

printf ("the sum of the numbers which are divisible by 9 is : %d",sum);
printf ("\nthe number of the numbers which are divisible by 9 is :%d",i9);

return 0;
}
```

23. Write C code to convert a decimal number into binary without using an array.

```c
#include <stdio.h>
int main() {
int binary = 0, remain = 0, place = 1,n;
printf ("Enter a decimal namber :\n");
scanf ("%d",&n);
while ( n != 0 )
{
  remain = n % 2;
  n = n / 2;
  binary = binary + (remain * place);
  place = place * 10;
}
printf ("the binary number is : %d", binary);
 return 0;
}
```

24. Write C code to convert a binary number into a decimal number without using array, function and while loop.

```c
#include <stdio.h>
#include <math.h>
int main()
{
  int num = 0, bin, digit = 0, counter = 0, tempbin, power;

  printf("Enter a binary number\n");
  scanf("%d", &bin);
  tempbin = bin;
  printf("\nDecimal equivalent of %d is ", bin);
  for (tempbin ; tempbin > 0; tempbin/=10)
  {
    digit = tempbin %10;
    counter++;
  }
  digit=0;
  tempbin = bin;
  for (int i = 0; i < counter; i++)
  {
    power = pow (2,i);
    digit = tempbin %10;
    num = num + digit * power;
    tempbin = tempbin /10;
  }
  printf("%d\n", num);
  return 0;
}
```

25. Write C code to print Pascal triangle upto n rows.

```c
#include <stdio.h>
int main() {
int row, pascal = 1, space, i, j;
printf("Enter the number of rows: ");
scanf("%d", &row);
for (i = 0; i < row; i++)
{
  for (space = 1; space <= row - i; space++)
    printf("  ");
  for (j = 0; j <= i; j++)
  {
    if (j == 0 || i == 0)
      pascal = 1;
    else
      pascal = pascal * (i - j + 1) / j;
    printf("%4d", pascal);
  }
  printf("\n");
}
return 0;
}
```

some different questions

1- Write the program with the C language, which computes the sum of the two numbers entered on the keyboard.

```c
#include <stdio.h>

void main()
{
    int x, y, sum;
    printf("enter number x :\n");
    scanf("%d", &x);
    printf("enter number y :\n");
    scanf("%d", &y);
    sum = x + y;
    printf("the result is : %d", sum);
```

2-Two numbers are entered from the keyboard with integer variables A and B. Write the program with the C language, which changes the values of the A and B variables between them.

```c
    int A = 9, B = 5, C;
    printf("A number is: %d and B number is: %d\n", A, B);
    C = A;
    A = B;
    B = C;
    printf("A number is: %d and B number is: %d", A, B);
```

3- Klavyeden bir öğrenci için öğrenci no, vize ve final girildiğinde, öğrencinin vize notunun %40'I ve final notunun %60'ı alarak geçme notunu hesaplayan ve öğrencinin numarası ile birlikte ekrana sonucu yazdıran programı C dili ile yazınız.

```c
    int studentID;
    int final, visa, passingGrade;
    printf("please enter your Student ID:\n");
    scanf("%d", &studentID);
    printf("please enter your visa result (from 100):\n");
    scanf("%d", &visa);
    printf("please enter your final result (from 100):\n");
    scanf("%d", &final);
    visa = (40 * visa) / 100;
    final = (60 * final) / 100;
    passingGrade = visa + final;
    printf("Dier %d\n", studentID);
    printf(" your passing grade is: %d\n", passingGrade);
```

4- Klavyeden bir dairenin yarıçap bilgisi ve işlem türü girildiğinde işlem türü 1 ise dairenin çevresini hesaplanıp yazdıran 2 girilirse alanının hesaplayıp yazdıran, bunların dışındaki girişler için "Yanlış giriş" mesajı vererek sonlanan programı C dili ile yazınız.

```c
float perimeter, area, r, chose, pi = 3.14;
printf("Enter number 1 for calculating perimeter or enter 2 for calculating area\n");
scanf("%f", &chose);

if (chose == 1)
{
    printf("enter the radius of circle:\n");
    scanf("%f", &r);
    perimeter = 2 * pi * r;
    printf("the perimeter of the circle = %f\n", perimeter);
}
else if (chose == 2)
{
    printf("enter the radius of circle:\n");
    scanf("%f", &r);
    area = pi * r * r;
    printf("the area of the circle = %f\n", area);
}
else
{
    printf("Wrong Input");
}
```

5- Klavyeden girilen bir para miktarını en az banknot kullanarak oluşturmak istediğimizde içinde kaç tane 100, 50, 20 ve 10'luk olduğunu bulan programı C dili ile yazınız. Not: Klavyeden girilen para miktarı 10'un katları olmalıdır.

```
    int num;
    int iHundred = 0, iFifty = 0, iTwenty = 0, iTen = 0;
    printf("enter your money's number (the number must be multiples of 10)\n");
    scanf("%d", &num);
    if (num % 10 == 0)
    {
        for (num; num >= 100; num -= 100)
        {
            iHundred++;
        }
        for (num; num < 100 && num >= 50; num -= 50)
        {
            iFifty++;
        }
        for (num; num < 50 && num >= 20; num -= 20)
        {
            iTwenty++;
        }
        for (num; num < 20 && num >= 10; num -= 10)
        {
            iTen++;
        }

        printf("H: %d F: %d TW: %d TE: %d\n", iHundred, iFifty, iTwenty, iTen);
    }
    else
    {
        printf("Wrong Input");
    }
    return 0;
}
```

Soru 1ve2- girilen iki sayiyi yazdirma ve bu sayıları toplama

```c
#include <stdio.h>
int main()
{
    int x, y;
    printf("Enter the first numbrer : \n");
    scanf("%d", &x);

    printf("Enter the second numbrer : \n");
    scanf("%d", &y);

    printf("\n %d + %d = %d", x, y, x + y);
    return 0;
}
```

Soru 3- girilen N sayisi tek mi cift mi

```c
#include <stdio.h>
int main()
{
    int n;
printf("Enter a number : /n");
scanf("%d",&n);

if(n%2==0){
    printf("\n%d number is EVEN number\n",n);
}else{
    printf("\n%d number is ODD number\n",n);
}
    return 0;
}
```

Soru 4- Girilen sicakligin donma noktasi ile durumu

```c
#include <stdio.h>
int main()
{
    int temperature;
    printf("Enter the temperature :\n");
    scanf("%d", &temperature);

    if (temperature == 0)
        printf("\nThe temperature equals the freezing point.\n");
    else if (temperature < 0)
        printf("\nThe temperature is under the freezing point.\n");
    else
        printf("\nThe temperature is over the freezing point.\n");

    return 0;
}
```

Soru 5- Fahrenheit to celsius

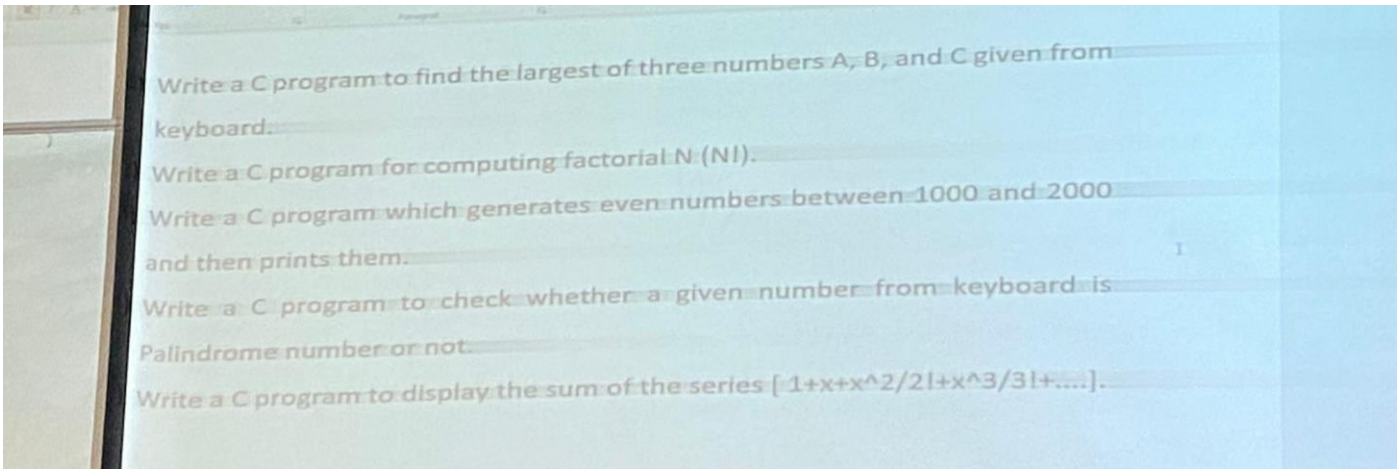
```c
#include <stdio.h>
int main()
{

    float ConvertCelsius = 0, f;
    printf("Enter the temperature by Fahrenheit :\n");
    scanf("%f", &f);
    ConvertCelsius = (f - 32) / 1.8;
    printf("\nthe temperature by Celsius is : %.2f", ConvertCelsius);

    return 0;
}
```

Soru 7- 1den 10a kadar sayıların karesi

```c
#include <stdio.h>
int main()
{
for (int i = 0; i <= 10; i++)
    printf("%d\n", i * i);
return 0;
}
```

Soru 8- Girilen A,B,C'den en buyugunu bulma

```c
#include <stdio.h>
int main() {
int a, b , c;
printf("enter the first number:\n");
scanf ("%d",&a);
printf("enter the second number:\n");
scanf ("%d",&b);
printf("enter the third number:\n");
scanf ("%d",&c);
if (a>b)
{
  if (a>c)
    printf ("the largest number is: %d", a);
  else
  {
    if (c>b)
      printf ("the largest number is: %d", c);
  }
}
else
{
  if (b>c)
    printf ("the largest number is: %d", b);
  else
  {
    if(c>a)
      printf ("the largest number is: %d", c);
  }
}
 return 0;
}
```



I have already answered to 1, 2, 4, and 5 questions

Q3:

```
for (int i = 1000; i <= 2000; i++)
{
    if(i%2 == 0){
    printf ("%d\n",i);
    }

}*
```

1- the average of arrays elements

```c
#include <stdio.h>
#include <math.h>
int main () {

float arr[8];
float sum = 0, avg = 0;
printf("enter 8 numbers\n");

for (int i = 0; i < 8; i++)
{
    scanf ("%f",&arr[i]);
}
for (int i = 0; i < 8; i++)
{
sum = sum + arr[i];
}
avg = sum / 8;

printf ("the averaga = %f", avg);*/
```

2- A program that prints the square of a user-entered array and stops when entering -1

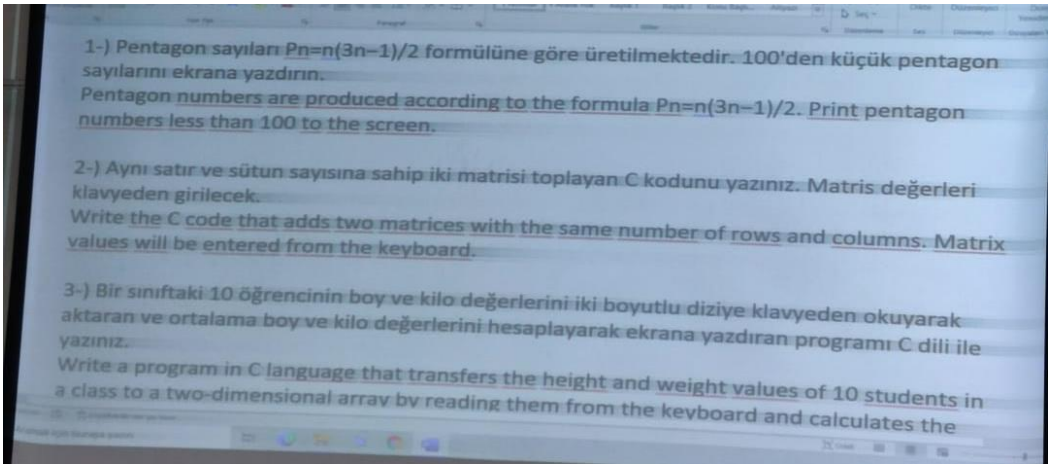
```c

int a[10];
printf("enter maximum 10 numbers and press -1 if you want stop entering numbers\n");
for (int i = 0; i < 10; i++)
{
    scanf ("%d", &a[i]);
    if(a[i]== -1){
        break;
    }
}
for (int i = 0; i < 10; i++)
{
   if (a[i]== -1){
        break;
    }
    printf ("%.1lf\t", pow(a[i],2));
}
```

3- write a program that assigns the digits of the maximum 5-digit number to an array and prints it to the screen

```
int n, digit = 0;
printf (" enter an number that contains maximum 5 digits\n");
scanf("%d",&n);
int x[5];
for (int i = 0; i < 5; i++)
{
    digit = n % 10;
    x[i] = digit;
    n = n /10;
}
for (int i = 4; i >= 0; i--)
{
   printf ("%d",x[i]);
}
```

4- A program that reverses the elements of an array

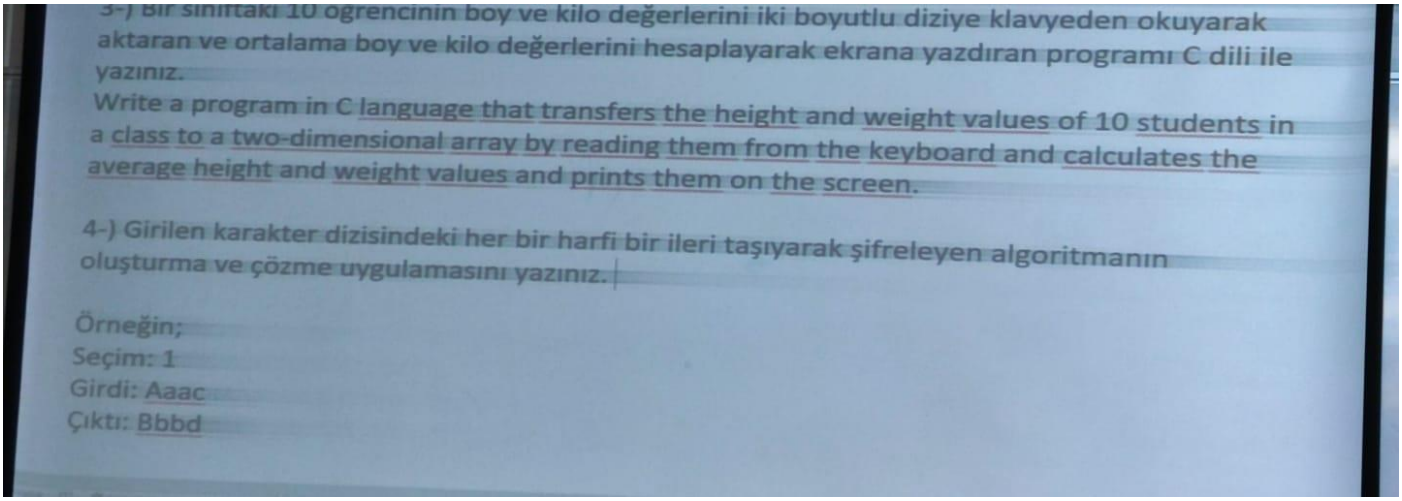
```
int rev[10];
printf ("enter 10 numbers\n");
for (int i = 0; i < 10; i++)
{
    scanf ("%d",&rev[i]);
}
printf("\nyour numbers is :\n");
for (int i = 0; i < 10; i++)
{
    printf ("%d", rev[i]);
}
printf("\nthe reverse of your numbers is :\n");
for (int i = 9; i >= 0; i--)
{
    printf ("%d", rev[i]);
}

return 0;
}
```



1-) Pentagon sayıları Pn=n(3n−1)/2 formülüne göre üretilmektedir. 100'den küçük pentagon sayılarını ekrana yazdırın.
Pentagon numbers are produced according to the formula Pn=n(3n−1)/2. Print pentagon numbers less than 100 to the screen.

2-) Aynı satır ve sütun sayısına sahip iki matrisi toplayan C kodunu yazınız. Matris değerleri klavyeden girilecek.
Write the C code that adds two matrices with the same number of rows and columns. Matrix values will be entered from the keyboard.

3-) Bir sınıftaki 10 öğrencinin boy ve kilo değerlerini iki boyutlu diziye klavyeden okuyarak aktaran ve ortalama boy ve kilo değerlerini hesaplayarak ekrana yazdıran programı C dili ile yazınız.
Write a program in C language that transfers the height and weight values of 10 students in a class to a two-dimensional array by reading them from the keyboard and calculates the



3-) Bir sınıftaki 10 öğrencinin boy ve kilo değerlerini iki boyutlu diziye klavyeden okuyarak aktaran ve ortalama boy ve kilo değerlerini hesaplayarak ekrana yazdıran programı C dili ile yazınız.
Write a program in C language that transfers the height and weight values of 10 students in a class to a two-dimensional array by reading them from the keyboard and calculates the average height and weight values and prints them on the screen.

4-) Girilen karakter dizisindeki her bir harfi bir ileri taşıyarak şifreleyen algoritmanın oluşturma ve çözme uygulamasını yazınız.

Örneğin;
Seçim: 1
Girdi: Aaac
Çıktı: Bbbd

Q1:

```c
#include <stdio.h>

int main()
{


    int pn;

    for (int i = 1; i < 100; i++)
    {
        pn = i * ((3*i)-1) / 2;
        if(pn <= 100)
        {
        printf ("the pentagon number of %d is : %d\n", i,pn);
        }
    }
```

Q2:

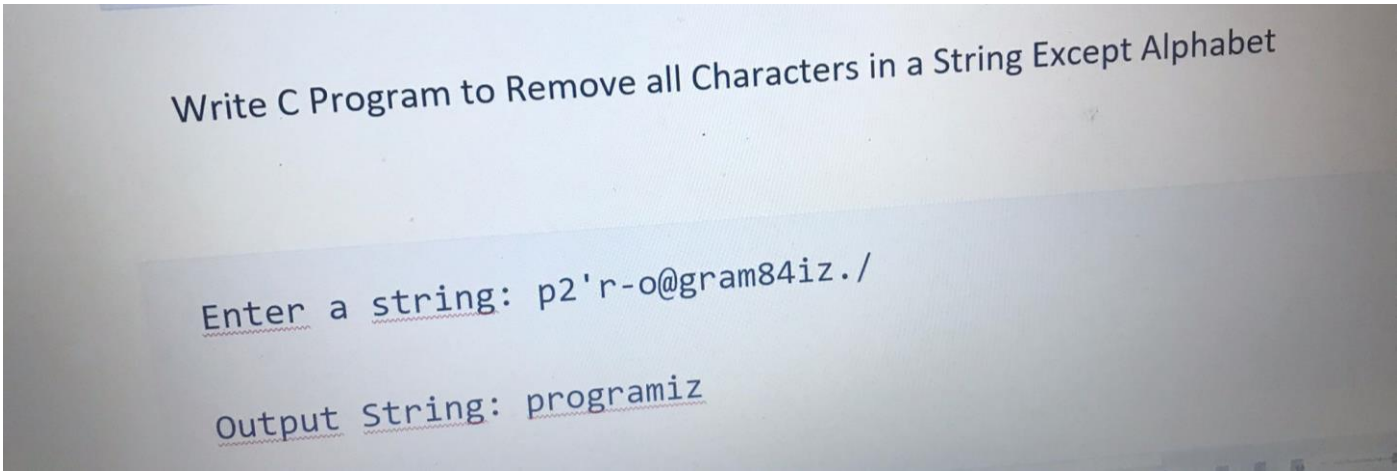
```
int matric[5][5];

for (int i = 0; i < 5; i++)
{
    for (int j = 0; j < 5; j++)
    {
        scanf ("%d", &matric[i][j]);
    }
}
for (int i = 0; i < 5; i++)
{
    for (int j = 0; j < 5; j++)
    {
        printf ("%d", matric[i][j]);
    }
}
```

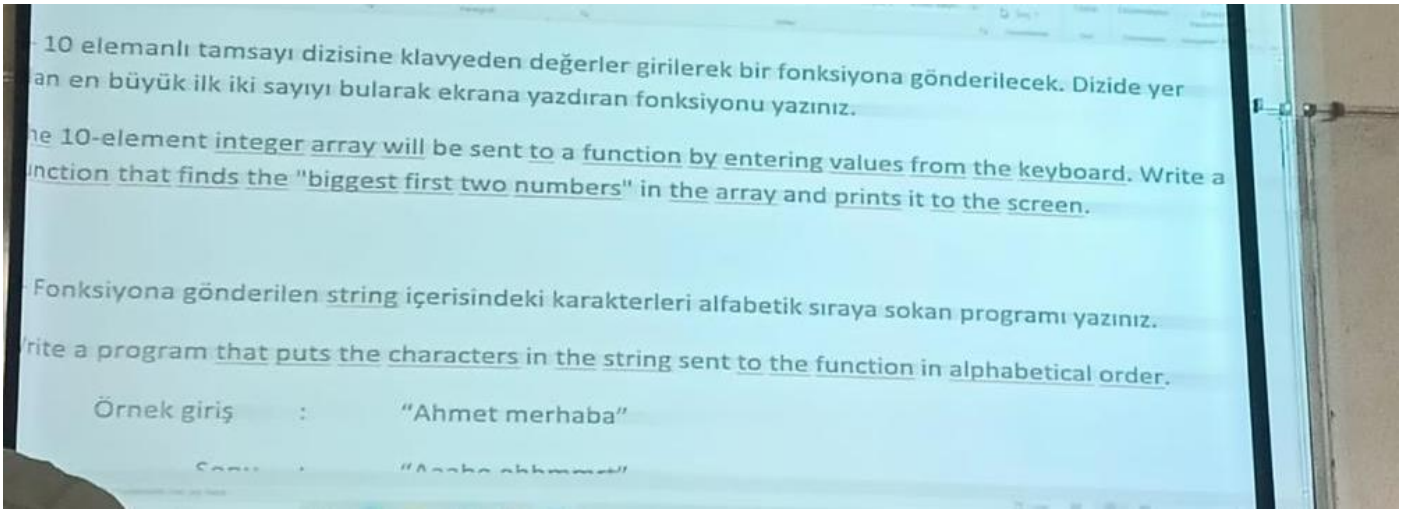
Q3:

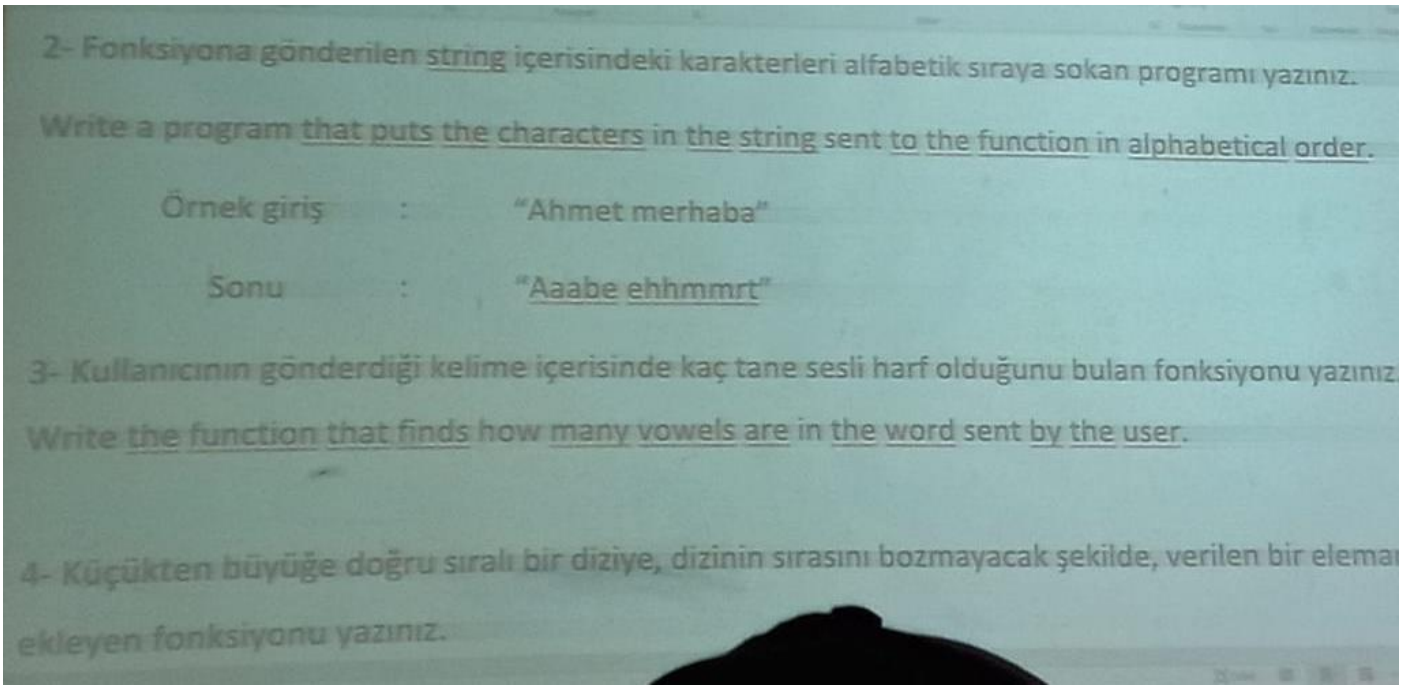
```
int counterS = 0, counterWH = 0;
float HWStudent[3][2];
float sumH = 0, sumW = 0;
float avgH = 0, avgW = 0;

for (int i = 0; i < 3; i++)
{
    counterS++;
    for (int j = 0; j < 2; j++)
    {
        counterWH++;
        if (counterWH % 2 == 0)
            printf("Enter the height of student (%d) : ", counterS);
        else
            printf("Enter the weight of student (%d) : ", counterS);
        scanf("%f", &HWStudent[i][j]);
    }
}
for (int i = 0; i < 3; i++)
{
    sumW = sumW + HWStudent[i][0];
}
for (int i = 0; i < 3; i++)
{

    sumH = sumH + HWStudent[i][1];
}

avgH = sumH / 3;
avgW = sumW / 3;
printf("\n the sum of heights students is :%.2f\t", sumH);
printf("\n the sum of weights students is :%.2f\t", sumW);
printf("\n the AVG of heights students is :%.2f\t", avgH);
printf("\n the AVG of weights students is :%.2f\t", avgW);
```

Q4:

```
    char temp, str[100];

    printf("\n Enter the string : ");
    gets(str);
    printf("\nThe sorted first string is : ");
    for (int i = 0; i < str[i]!='\0'; i++)
    {
        for (int j = i; j < str[j]!='\0'; j++)
        {
            if (str[i] > str[j])
            {
                temp = str[i];
                str[i] = str[j];
                str[j] = temp;
            }
        }
    }
    printf ("%s",str);
  return 0;
}
```







Q1:

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

int main()
{

    char str[150];

    gets(str);

    for (int i = 0; i <= str[i] != '\0'; i++)
    {
        if ((str[i] >= 'a' && str[i] <= 'z') || (str[i] >= 'A' && str[i] <= 'Z'))
        {

            printf("%c", str[i]);
        }
    }
    return 0;
}
```

Q2:

```
void biggestN(int arr[10])
{
    int tempmax = 0, max1 = 0, max2 = 0;

    for (int i = 0; i < 10; i++)
    {
        if (arr[i] > tempmax)
        {
            tempmax = arr[i];
        }
    }
    max1 = tempmax;
    for (int i = 0; i < 10; i++)
    {
        if (arr[i] == max1)
        {
            arr[i] = 0;
        }
    }
    for (int i = 0; i < 10; i++)
    {
        printf("%d\t", arr[i]);
    }

    for (int i = 0; i < 10; i++)
    {
        if (arr[i] > max2)
        {
            max2 = arr[i];
        }
    }
    printf("\nthe first biggest number is :%d", max1);
    printf("\nthe second biggest number is :%d", max2);
}
```

Q3:

```
void alphabetical(char str[100])
{
    char temp;
    for (int i = 0; i < str[i] != '\0'; i++)
    {
        for (int j = i; j < str[j] != '\0'; j++)
        {
            if (str[i] > str[j])
            {
                temp = str[i];
                str[i] = str[j];
                str[j] = temp;
            }
        }
    }
    printf("%s", str);
}
```

Q4:

```
int vowel(char str[])
{
    int counter = 0;
    for (int i = 0; i < str[i] != '\0'; i++)
    {
    if (str[i] == 'a' || str[i] == 'e' || str[i] == 'i' || str[i] == 'u' || str[i] == 'o')
        {
            counter++;
        }
    }
    return counter;
}
```

Q5:

```
void addNumber(int num[], int x, int size)
{
    int p;
    for (int i = 0; i < size; i++)
    {
        if (x < num[i])
        {
            p = i;
            break;
        }
        else
        {
            p = i + 1;
        }
    }
    for (int i = size + 1; i >= p; i--)
        num[i] = num[i - 1];

    num[p] = x;
    printf("\n\nAfter Insert the list is :\n");
    for (int i = 0; i <= size; i++)
        printf("% 5d", num[i]);
    printf("\n");
}
```

1- Program for throwing a dice 100 times at random and counting the number of each possibility

```c
#include <stdio.h>
#include <stdlib.h>
#include <time.h>
int main()
{
    int n[100];
    int i1 = 0, i2 = 0, i3 = 0, i4 = 0, i5 = 0, i6 = 0;

    printf("Ten random numbers in [1,6]\n");
    for (int i = 0; i < 100; i++)
    {
        n[i] = rand() % 6 + 1;
        printf("%d", n[i]);
    }
    for (int i = 0; i < 100; i++)
    {
        switch (n[i])
        {
        case 1:
            i1++;
            break;
        case 2:
            i2++;
            break;
        case 3:
            i3++;
            break;
        case 4:
            i4++;
            break;
        case 5:
            i5++;
            break;
        default:
            i6++;
            break;
        }
    }
    printf("\nthe number of (1) =  %d", i1);
    printf("\nthe number of (2) =  %d", i2);
    printf("\nthe number of (3) =  %d", i3);
    printf("\nthe number of (4) =  %d", i4);
    printf("\nthe number of (5) =  %d", i5);
    printf("\nthe number of (6) =  %d", i6);
    return 0;
}
```

2- Switch between the first and last character of an string array

```c
#include<stdio.h>
#include <math.h>
int main(){

char str [80];
int leng =0;
char x;

gets (str);

x = str[0];

for ( leng = 0;str[leng] != '\0'; leng++);
str[0]=str[leng-1];
str[leng-1] = x;
puts (str);
```

3- merge two arrays

```c
char name[50], surname[50], nameAndSur[100];
int lengName = 0, lengSur = 0;
printf ("enter your name :\t");
gets (name);
printf ("\nenter your surname :\t");
gets (surname);
while (name[lengName] != '\0')
{
    lengName++;
}
while (surname[lengSur]!='\0')
{
    lengSur++;
}
for (int i = 0; i < lengName ; i++)
{
    nameAndSur[i] = name[i];
}
for (int i = 0; i < (lengName+lengSur); i++)
{
    nameAndSur[i + lengName] = surname[i];
}
printf("\nyour full name is :\t");

puts(nameAndSur);
```

4- Checking whether two arrays are equal or not

```
char s1[50], s2[50];
int ls1 = 0, ls2 = 0, maxl=0;
printf ("enter the first word :\t");
gets (s1);
printf ("\nenter the second word :\t");
gets (s2);
while (s1[ls1] != '\0')
{
    ls1++;
}
while (s2[ls2]!='\0')
{
    ls2++;
}

if (ls1 != ls2){
     printf ("\nthe first word and second word are NOT same");
} else {

   for (int i = 0; i < ls1; i++)
   {
       if (s1[i] == s2[i])
       {
           maxl++;
       }
   }
   if (maxl == ls1)
   {
        printf ("\nthe first word and second word are same");
   } else {
        printf ("\nthe first word and second word are NOT same");
   }
}


return 0;
}
```