**1.1\_01\_101**

#include <stdio.h>

void main()

{ int i,j,n,p,q;

printf("Input number of rows : ");

scanf("%d",&n);

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

{

if(i%2==0)

{ p=1;q=0;}

else

{ p=0;q=1;}

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

if(j%2==0)

printf("%d",p);

else

printf("%d",q);

printf("\n");

}}

**2. 1\_22\_333**

#include<stdio.h>

int main()

{

int i,j,n;

printf("Please input the numbers");

scanf("%d",&n);

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

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

printf("%d",i);

printf("\n");

}

return 0;

}

**3. 1\_23\_456**

#include<stdio.h>

int main()

{

int i,j,n,k=1;

printf("Please input the numbers");

scanf("%d",&n);

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

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

printf("%d",k++);

}

printf("\n");

}

return 0; }

**4. 1\_121\_**

#include <stdio.h>

void main()

{

int i,j,n;

printf("Input number of rows : ");

scanf("%d",&n);

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

{

for(j=1;j<=n-i;j++)

printf(" ");

/\* Display number in ascending order upto middle\*/

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

printf("%d",j);

/\* Display number in reverse order after middle \*/

for(j=i-1;j>=1;j--)

printf("%d",j);

printf("\n");

}

}

**5. 9\_99\_999\_series**

#include<stdio.h>

int main()

{

int sum=0,i,a,b,t=0;

float sum2=0,sum3=0,sum4=0,sum5=0;

printf("Please input the number");

scanf("%d",&a);

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

{

t=t\*10+9;

sum=sum+t; }

printf("a)%d ",sum);

return 0; }

**6.1\_12\_123…….**

#include<stdio.h>

int main()

{

int sum=0,i,a,b,t=0;

float sum2=0,sum3=0,sum4=0,sum5=0;

printf("Please input the number");

scanf("%d",&a);

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

{

t=t\*10+9;

sum=sum+t;

}

printf("a)%d ",sum);

return 0;

}

**7. Area calculation**

#include<stdio.h>

void main()

{

float area, radius, pi;

pi=3.1416;

printf("\n\n Enter the radius what you need");

scanf("%f", &radius);

area=pi\*radius\*radius;

printf("\nTotal Area of circle is %.2f",area); }

**8. ax+ bx+ c**

#include <stdio.h>

#include <math.h>

int main()

{

double a, b, c, discriminant, root1, root2, realPart, imaginaryPart;

printf("Enter coefficients a, b and c: ");

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

discriminant = b\*b-4\*a\*c;

// condition for real and different roots

if (discriminant > 0)

{

// sqrt() function returns square root

root1 = (-b+sqrt(discriminant))/(2\*a);

root2 = (-b-sqrt(discriminant))/(2\*a);

printf("root1 = %.2lf and root2 = %.2lf",root1 , root2);

}

//condition for real and equal roots

else if (discriminant == 0)

{

root1 = root2 = -b/(2\*a);

printf("root1 = root2 = %.2lf;", root1);

}

// if roots are not real

else

{

realPart = -b/(2\*a);

imaginaryPart = sqrt(-discriminant)/(2\*a);

printf("root1 = %.2lf+%.2lfi and root2 = %.2f-%.2fi", realPart, imaginaryPart, realPart, imaginaryPart);

}

return 0;

}

**9. check palindrome or not**

#include <stdio.h>

int main()

{

int n, num, rev = 0;

/\* Input a number from user \*/

printf("Enter any number to check palindrome: ");

scanf("%d", &n);

/\* Copy original value to 'num' to 'n'\*/

num = n;

/\* Find reverse of n and store in rev \*/

while(n != 0)

{

rev = (rev \* 10) + (n % 10);

n /= 10;

}

/\* Check if reverse is equal to 'num' or not \*/

if(rev == num)

{

printf("%d is palindrome.", num);

}

else

{

printf("%d is not palindrome.", num);

}

return 0;

}

**10. counting the numbers**

#include<stdio.h>

int main(){

int i,n,a,sum;

printf("Input the numbers \n");

scanf("%d",&n);

sum=0;

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

sum=sum+i;

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

return 0;

}

**11. Cube square**

#include<stdio.h>

#include<math.h>

int main ()

{

int n,i,sum=0;

printf("Please input the numbers");

scanf("%d",&n);

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

printf("Result of squre: %d \n Result of cube:%d ",i\*i,i\*i\*i);

return 0;

}

**12. diamond shape**

#include <stdio.h>

void main()

{

int i,j,r;

printf("Input number of rows (half of the diamond) :");

scanf("%d",&r);

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

{

for(j=1;j<=r-i;j++)

printf(" ");

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

printf("\*");

printf("\n");

}

for(i=r-1;i>=1;i--)

{

for(j=1;j<=r-i;j++)

printf(" ");

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

printf("\*");

printf("\n");

} }

**Or**

#include<stdio.h>

#include<math.h>

void main(){

int n,i,j;

printf("enter number:");

scanf("%d",&n);

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

for(j=n;j>=i;j--) {printf(" ");}

for(j=1;j<=i;j++) {printf("\* ");} printf("\n");}

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

for(j=1;j<=i;j++) {printf(" ");}

for(j=n;j>=i;j--) {printf("\* ");} printf("\n");}}

**13. area of circle**

#include<stdio.h>

int main(){

int a,b,x,y;

float d,r,c;

printf("a : ");

scanf("%d",&a);

printf("b : ");

scanf("%d",&b);

printf("x : ");

scanf("%d",&x);

printf("y : ");

scanf("%d",&y);

d=sqrt(pow((a-x),2)+(pow((b-y),2)));

if(d==0)

printf("\n\nNo circle!!! How I can calculate the area.\n\n");

else{

c=d/2;

r=(3.1416\*pow(c,2));

printf("\n\nArea : %f\n\n",r);

}

}

**14. find out the region**

#include<stdio.h>

int main(){

int a,b,x,y;

float d,r,c;

printf("x : ");

scanf("%d",&x);

printf("y : ");

scanf("%d",&y);

if(x>0 && y>0)

printf("The point is in region 1");

else if(x<0&&y<0)

printf("The point is in region 3");

else if(x>0||y<0)

printf("The point is in region 4");

else

printf("The point is in region 2");

}

**15. Input the numbers and find out cube and square**

#include<stdio.h>

#include<math.h>

int main ()

{

int n,i,sum=0,j;

printf("Please input the numbers");

scanf("%d",&n);

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

printf("\nResult of squre: %d \n Result of cube:%d ",i\*i,i\*i\*i);

}

return 0; }

**16. find our max, min, median**

#include<stdio.h>

int main()

{

int a,b,c;

float avg;

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

avg=(a+b+c)/3;

if(a>b&&a>c)

printf("a=%d is max",a);

else if(b>a&&b>c)

printf("b=%d is max",b);

else

printf("c=%d is max",c);

if(a<b&&a<c)

printf("a=%d is min",a);

else if(b>a&&b>c)

printf("b=%d is min",b);

else

printf("c=%d is min",c);

printf("c=%d is median",c);

return 0; }

**Or**

#include<stdio.h>

int main()

{

int a,b,c;

float avg;

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

avg=(a+b+c)/3;

if(a>b&&a>c)

printf("%d is max",a);

else if(b>a&&b>c)

printf("%d is maximum\n",b);

else

printf("%d is maximum\n",c);

if(a<b&&a<c)

printf("%d is minimum\n",a);

else if(b>a&&b>c)

printf("%d is minimum\n",b);

else

printf("%d is minimum\n",c);

printf("%d is median\n",c);

return 0; }

**17.Find out factorial**

#include<stdio.h>

int main()

{

int i,j,n,f=1;

printf("Please input the numbers");

scanf("%d",&n);

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

f=f\*i;

printf("%d",f);

return 0; }

**18.find out cellsious to Farenheit**

#include<stdio.h>

void main()

{

float faren, cell;

printf("\n\n Enter the cell what you need");

scanf("%f", &cell);

faren=1.8\*cell+32;

printf("\n Ferenhiet %.2f",faren); }

**19. fibonaci series**

#include <stdio.h>

void main()

{

int prv=0,pre=1,trm,i,n;

printf("Input number of terms to display : ");

scanf("%d",&n);

printf("Here is the Fibonacci series upto to %d terms : \n",n);

printf("% 5d % 5d", prv,pre);

for(i=3;i<=n;i++)

{

trm=prv+pre;

printf("% 5d",trm);

prv=pre;

pre=trm;

}

printf("\n"); }

**20. grading system**

#include<stdio.h>

int main(){

int marks;

printf("Input the numbers \n");

scanf("%d",&marks);

if((marks>=90) && (marks<=100))

printf("Your grade is A \n");

else if((marks>=80) && (marks<=90))

printf("Your grade is B \n");

else if((marks>=70) && (marks<=80))

printf("Your grade is C \n");

else if((marks>=60) && (marks<=70))

printf("Your grade is D \n");

else if((marks>=00) && (marks<60))

printf("Your grade is F \n");

else

printf("Invalid Input \n");

}

**21. find out circle or not and find out the area**

#include<stdio.h>

int main(){

int a,b,x,y;

float d,r,c;

printf("a : b: x: y:");

scanf("%d%d%d%d",&a,&b,&x,&y);

d=sqrt(pow((a-x),2)+(pow((b-y),2)));

if(d==0)

printf("\n\nNo circle!!! How I can calculate the area.\n\n");

else{

c=d/2;

r=(3.1416\*pow(c,2));

printf("\n\nArea : %.2f\n\n",r);

} }

**22. Find out leap year or not**

#include<stdio.h>

#include<math.h>

int main()

{

int d,a,b;

printf("Enter the year ");

scanf("%d",&a);

if(((a%4)==0) && ((a%100)!=0) || ((a%400)==0))

printf(" %d is a leap Year",a);

else

printf(" %d is not a leap Year",a);

return 0; }

**23.1+2+3…,1+1/2+1/3….,1.2+3.4+5.6……,1.2.3+2.3.4+3.4.5…..,1+2+4+7+11…..**

#include<stdio.h>

int main()

{

int sum=0,i,a,b;

float sum2=0,sum3=0,sum4=0,sum5=0;

printf("Please input the number");

scanf("%d",&a);

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

{

sum=sum+i;

sum2=sum2+((float)1/(float)i);

sum3=sum3+(i+1);

sum4=sum4+(i\*(i+1)\*(i+2));

sum5=sum5+((i\*(i-1))/2)+1; }

printf("a)%d \n b)%.2f\n c)%.2f\n d)%.2f\n e)%.2f",sum,sum2,sum3,sum4,sum5);

return 0; }

24.

#include<stdio.h>

#include<math.h>

int main()

{

int d,a,b,c,i;

printf("Enter the years ");

scanf("%d",&a);

for(i=0;i<a;i++){

printf("Please input the years");

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

if(b<c)

{

if((((b%4)==0) && ((b%100)!=0) || ((b%400)==0)) &&

(((c%4)==0) && ((c%100)!=0) || ((c%400)==0)))

printf(" %d %d is a leap Year",b,c);

else

printf(" %d %d is not a leap Year",b,c); }

else

printf(" Please maintain the rules");

return 0;

} }

**25. Calculate university exam mark and find out grading system**

#include<stdio.h>

int main(){

int marks,a,s,c,b,d,e,f,g,quiz,r,i;

printf("Please input the number \n");

scanf("%d",&r);

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

printf("Please input the number \n");

scanf("%d%d%d%d%d%d%d",&a,&s,&c,&d,&e,&f,&g);

if(e>f&&e>g&&f>g)

quiz=(e+f)/2;

else if(g>e&&g>f&&e>f)

quiz=(g+e)/2;

else

quiz=(g+f)/2;

marks=a+s+c+d+quiz;

if((marks>=90) && (marks<=100))

printf("Your grade is A \n");

else if((marks>=80) && (marks<=90))

printf("Your grade is B \n");

else if((marks>=70) && (marks<=80))

printf("Your grade is C \n");

else if((marks>=60) && (marks<=70))

printf("Your grade is D \n");

else if((marks>=00) && (marks<60))

printf("Your grade is F \n");

else

printf("Invalid Input \n");

} }

**27. calculate bonus and commission**

#include<stdio.h>

#include<math.h>

int main()

{

float d,a,b,bonus,commission;

printf("Enter the number of computer ");

scanf("%f",&a);

printf("Price of each computer ");

scanf("%f",&b);

bonus=a\*200;

commission=(b\*2\*5)/100;

printf(" Bobus=%.2f \n Commission=%.2f",bonus,commission);

return 0; }

**28. miles into kilometer**

#include<stdio.h>

#include<math.h>

int main()

{

float miles,yards,d,a,b;

printf("Enter the distance in miles and yards");

scanf("%f%f",&a,&b);

miles=a\*1.609;

yards=b/1760;

d=miles+yards;

printf(" The distance in Kilometer is:%f",d);

return 0;

}

29.

#include<stdio.h>

int main()

{

int days,months,number,years,temp1,temp2,weeks,hours;

printf("Please Enter Your Numbers");

printf("\n");

scanf("%d",&number);

temp1=8760;

temp2=168;

years=number/temp1;

number=number%temp1;

weeks=number/temp2;

number=number%temp2;

days=number/24;

number=number%24;

hours=number;

printf(" Year=%d Months=%d Days=%d hours=%d",years,weeks,days,hours);

return 0;

}

**30.Input days and Find out year, months, days**

#include<stdio.h>

int main()

{

int days,months,number,year;

printf("Please Enter Your Numbers");

printf("\n");

scanf("%d",&number);

months=number/30;

days=number%30;

year=months/12;

printf(" Year=%d Months=%d Days=%d",year,months,days);

return 0; }

**31. find out perfect or not (perfect means divisor the numbers and summation their divisor. 6->1+2+3=6. So 6 is perfect number**

#include <stdio.h>

void main()

{

int n,i,sum;

int mn,mx;

printf("Input the number : ");

scanf("%d",&n);

sum = 0;

printf("The positive divisor : ");

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

{

if(n%i==0)

{

sum=sum+i;

printf("%d ",i);

}

}

printf("\nThe sum of the divisor is : %d",sum);

if(sum==n)

printf("\nSo, the number is perfect.");

else

printf("\nSo, the number is not perfect.");

printf("\n");

}

32. Prime\_num\_1\_to\_n

#include <stdio.h>

int main()

{

int i, j, end, isPrime; // isPrime is used as flag variable

/\* Input upper limit to print prime \*/

printf("Find prime numbers between 1 to : ");

scanf("%d", &end);

printf("All prime numbers between 1 to %d are:\n", end);

/\* Find all Prime numbers between 1 to end \*/

for(i=2; i<=end; i++)

{

/\* Assume that the current number is Prime \*/

isPrime = 1;

/\* Check if the current number i is prime or not \*/

for(j=2; j<=i/2; j++)

{

if(i%j==0)

{

isPrime = 0;

break;

} }

/\* If the number is prime then print \*/

if(isPrime==1)

{

printf("%d, ", i);

} }

return 0;

}

**33. Prime or not**

#include <stdio.h>

int main()

{

int i, num, isPrime;

isPrime = 1;

printf("Enter any number to check prime: ");

scanf("%d", &num);

for(i=2; i<=num/2; i++)

{

/\* Check divisibility of num \*/

if(num%i==0)

{

/\* Set isPrime to 0 indicating it as composite number \*/

isPrime = 0;

break;

}

}

if(isPrime == 1)

{

printf("%d is prime number", num);

}

else

{

printf("%d is composite number", num);

}

return 0;

}

**34. Prime range**

#include <stdio.h>

void main(){

int num,i,ctr,stno,enno;

printf("Input starting number of range: ");

scanf("%d",&stno);

printf("Input ending number of range : ");

scanf("%d",&enno);

printf("The prime numbers between %d and %d are : \n",stno,enno);

for(num = stno;num<=enno;num++)

{

ctr = 0;

for(i=2;i<=num/2;i++)

{

if(num%i==0){

ctr++;

break;

}

}

if(ctr==0 && num!= 1)

printf("%d ",num);

}

printf("\n");

}

**35. range of perfect**

#include <stdio.h>

void main(){

int n,i,sum;

int mn,mx;

printf("Input the starting range or number : ");

scanf("%d",&mn);

printf("Input the ending range of number : ");

scanf("%d",&mx);

printf("The Perfect numbers within the given range : ");

for(n=mn;n<=mx;n++){

i=1;

sum = 0;

while(i<n){

if(n%i==0)

sum=sum+i;

i++;

}

if(sum==n)

printf("%d ",n);

}

printf("\n");

}

36. reverse counting

#include<stdio.h>

int main(){

int i,n,a,sum;

printf("Input the numbers \n");

scanf("%d",&n);

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

printf("%d ",i);}

return 0; }

**37. If the sum of factorial of the digits in any number is equal the given number then the number is called as STRONG number.**

**Ex=1! +4! +5!= 1+24+120 = 145**

#include <stdio.h>

int main()

{ int i, originalNum, num, lastDigit, sum;

long fact;

/\* Input a number from user \*/

printf("Enter any number to check Strong number: ");

scanf("%d", &num);

/\* Copy the value of num to a temporary variable \*/

originalNum = num;

sum = 0;

/\* Find sum of factorial of digits \*/

while(num > 0)

{

/\* Get last digit of num \*/

lastDigit = num % 10;

/\* Find factorial of last digit \*/

fact = 1;

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

{

fact = fact \* i;

}

/\* Add factorial to sum \*/

sum = sum + fact;

num = num / 10;

}

/\* Check Strong number condition \*/

if(sum == originalNum)

{

printf("%d is STRONG NUMBER", originalNum);

}

else

{

printf("%d is NOT STRONG NUMBER", originalNum);

}

return 0;

}

38. strong number range

#include <stdio.h>

void main()

{

int i, n, n1, s1=0,j,k,en,sn;

long fact;

printf("\n\n Find Strong Numbers within an range of numbers:\n ");

printf("------------------------------------------------------\n");

/\* If sum of factorial of digits is equal to original number then it is Strong number \*/

printf("Input starting range of number : ");

scanf("%d", &sn);

printf("Input ending range of number: ");

scanf("%d", &en);

printf("\n\nThe Strong numbers are :\n");

for(k=sn;k<=en;k++)

{

n1=k;

s1=0;

for(j=k;j>0;j=j/10)

{

fact = 1;

for(i=1; i<=j % 10; i++)

{

fact = fact \* i;

}

s1 = s1 + fact;

}

if(s1==n1)

printf("%d ", n1) }

printf("\n\n");

}

**39. sum of odd number**

#include<stdio.h>

int main()

{

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

printf("Please input the lowest numbers");

scanf("%d",&a);

printf("Please input the highest numbers");

scanf("%d",&b);

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

if((i%2)==1){

sum=sum+i;

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

}

return 0; }

**40. Triangle \*-\*\*-\*\*\***

#include<stdio.h>

int main()

{

int i,j,n;

printf("Please input the numbers");

scanf("%d",&n);

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

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

printf("\*");

printf("\n");

}

return 0; }

**41. \*\*\***

**\*\***

\*

#include<stdio.h>

int main()

{

int i,j,n;

printf("Please input the numbers");

scanf("%d",&n);

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

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

printf("\*"); }

printf("\n");

}

return 0;

}

**42.find maximum**

#include<stdio.h>

int main()

{

int a,b,c,i;

printf("Please input three numbers");

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

if(a>b && a>c)

printf("Maximum is %d",a);

else if(b>c && b>c)

printf("Maximum is %d",b);

else

printf("Maximum is %d",c);

return 0;}

**43. vowel or not**

#include<stdio.h>

int main()

{

int c;

printf("Please input a character\n");

scanf("%c",&c);

if(c=='A'||c=='E'||c=='I'||c=='O'||c=='U'||c=='a'||c=='e'||c=='i'||c=='0'||c=='u')

printf("Input character is vowel");

else

printf("Input character is consonent");

return 0;

}

**44.2+4+6…………..**

#include<stdio.h>

int main()

{

int n,temp;

printf("Please input the numbers\n");

scanf("%d",&n);

temp=(n\*(n+1));

printf("Result is:%d",temp);

return 0;

}

**45.area triangle**

#include<stdio.h>

#include<math.h>

int main()

{

int s,temp,a,b,c;

printf("Please input the numbers\n");

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

s=(a+b+c)/2;

temp=sqrt(s\*(s-a)\*(s-b)\*(s-c));

printf("Result is:%d",temp);

return 0;

}

**46. Sum of digit of given numbers**

#include<stdio.h>

int main()

{

int n,sum=0,r;

printf("Please input numbers");

scanf("%d",&n);

while(n!=0){

r=n%10;

n=n/10;

sum=sum+r;

}

printf("Sum of digits of given numbers:%d",sum);

return 0;

}

**47. swap the numbers without third variable**

#include<stdio.h>

int main()

{

int a,b;

printf("Please input numbers");

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

a=b+a;

b=a-b;

a=a-b;

printf("swap the numbers:%d %d",a,b);

return 0;

}

**48.Count the numbers of digits**

#include<stdio.h>

int main()

{

int n,c=0,r;

printf("Please input numbers");

scanf("%d",&n);

while(n!=0){

n=n/10;

c++;

}

printf("Total digits of given numbers:%d",c);

return 0;

}

**49. Reverse string**

#include<stdio.h>

#include<string.h>

int main()

{

char str[100],\*rev;

printf("Please input a string");

scanf("%s",str);

rev=strrev(str);

printf("Revers String is:%s",rev);

return 0;

}

**50. series 1^3+2^3+3^3………….**

#include<stdio.h>

#include<math.h>

int main()

{

int n,sum=0,r,i;

printf("Please input numbers");

scanf("%d",&n);

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

r=pow((i+1),3);

sum=sum+r;

}

printf("Sum of digits of given numbers:%d",sum);

return 0;

}

**51.Connection two string**

#include<stdio.h>

#include<string.h>

int main()

{

char str1[100],str2[100];

printf("Please input two string");

scanf("%s%s",str1,str2);

strcat(str1,str2);

printf("String is:%s",str1,str2);

return 0;

}

52.