# PROGRAM

// Name :Abhiram S

//Roll No 21003

//Class :R2

//Quadratic equation

#include<stdio.h>

#include<math.h>

int main(){

float a,b,c;

float d,root1,root2;

printf("Enter a, b and c of quadratic equation: ");

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

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

if(d < 0){

printf("Roots are complex number.\n");

printf("Roots of quadratic equation are: ");

printf("%.3f%+.3fi",-b/(2\*a),sqrt(-d)/(2\*a));

printf(", %.3f%+.3fi",-b/(2\*a),-sqrt(-d)/(2\*a));

return 0;

}

else if(d==0){

printf("Both roots are equal.\n");

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

printf("Root of quadratic equation is: %.3f ",root1);

return 0;

}

else{

printf("Roots are real numbers.\n");

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

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

printf("Roots of quadratic equation are: %.3f , %.3f",root1,root2);

}

return 0;

}

------------------------------------OUTPUT------------------------------------------------

Enter a, b and c of quadratic equation: 1 2 3

Roots are complex number.

Roots of quadratic equation are: -1.000+1.414i, -1.000-1.414i

# PROGRAM

// Name :Abhiram S

//Roll No 21003

//Class :R2

//+ve number not deisplyed

#include<conio.h>

#include<stdio.h>

int main()

{

int n;

printf("Enter a no:");

scanf("%d",&n);

if(n<0)

printf("%d",n);

else

printf("\*\*\*ErRoR No rule to desplay that number.");

getch();

return 0;

}

------------------------------------OUTPUT------------------------------------------------

Enter a no:1

\*\*\*ErRoR No rule to desplay that number.

Enter a no:-1

-1

# PROGRAM

// Name :Abhiram S

//Roll No 21003

//Class :R2

//even or odd

#include <stdio.h>

#include<conio.h>

void main()

{

int a;

printf("Enter a number :");

scanf("%d",&a);

if(a%2==0)

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

else

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

getch();

}

------------------------------------OUTPUT------------------------------------------------

Enter a number :1

1 is odd

Enter a number :2

2 is even

# PROGRAM

// Name :Abhiram S

//Roll No 21003

//Class :R2

//nth term

#include<stdio.h>

#include<conio.h>

void main()

{

int a,d,n,i;

clrscr();

printf("Enter first term , the common difference and number of terms: ");

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

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

a=a+d;

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

getch();

}

------------------------------------OUTPUT------------------------------------------------

Enter first term , the common difference and number of terms: 1 2 2

2th term is 3

# PROGRAM

// Name :Abhiram S

//Roll No 21003

//Class :R2

//SUM of n numbers

#include<conio.h>

#include<stdio.h>

int main()

{

int sum=0,n,i;

printf("Enter the no:");

scanf("%d",&n);

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

{

sum=sum+i;

}

printf("%d%s",sum," is the sum!");

getch();

}

------------------------------------OUTPUT------------------------------------------------

Enter the no:10000

50005000 is the sum!

# PROGRAM

// Name :Abhiram S

//Roll No 21003

//Class :R2

//Multiplication table

#include<conio.h>

#include<stdio.h>

int main()

{

int a=0,b=0,i,j;

printf("Enter the range, lower limit folowed by upper limit :");

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

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

{

printf("\n==========START===========\n");

for(j=0;j<=10;j++)

{

printf("%d \* %d = %d \n",j,i,j\*i);

}

printf("\n==========END===========\n");

}

getch();

}

------------------------------------OUTPUT------------------------------------------------

Enter the range, lower limit folowed by upper limit :1 2

==========START===========

0 \* 1 = 0

1 \* 1 = 1

2 \* 1 = 2

3 \* 1 = 3

4 \* 1 = 4

5 \* 1 = 5

6 \* 1 = 6

7 \* 1 = 7

8 \* 1 = 8

9 \* 1 = 9

10 \* 1 = 10

==========END===========

==========START===========

0 \* 2 = 0

1 \* 2 = 2

2 \* 2 = 4

3 \* 2 = 6

4 \* 2 = 8

5 \* 2 = 10

6 \* 2 = 12

7 \* 2 = 14

8 \* 2 = 16

9 \* 2 = 18

10 \* 2 = 20

==========END===========

# PROGRAM

// Name :Abhiram S

//Roll No 21003

//Class :R2

//interest calculation

#include<stdio.h>

#include<conio.h>

void main()

{

float p,r,t,i;

clrscr();

printf("Enter the amount and number of years:");

scanf("%f %f", &p,&t);

if(p<=1000 && t>=2)

r=0.05;

else if(p>1000 && p<5000 && t>=2)

r=0.07;

else if(p>5000 && t>=1)

r=0.08;

else if(t>=5)

r=0.10;

else

r=0.30;

i=p\*r\*t;

printf("Interest %f ",i);

getch();

}

Enter an integer 5

Factorial= 120

------------------------------------OUTPUT------------------------------------------------

Enter an integer 5

Factorial= 120

# PROGRAM

// Name :Abhiram S

//Roll No 21003

//Class :R2

//Prime in a range

#include<stdio.h>

int main()

{

int a,b,i,j;

int p=1;

printf("Enter the two limits smaller and then larger (a and b ,where a<b) :");

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

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

{

p=1;

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

{

if(i%j==0)

{

p=0;

// printf("%d%d",i,j);

}

}

if(p==1 && i>1 )

printf("\n%d\n",i);

}

getch();

}

------------------------------------OUTPUT------------------------------------------------

Enter the two limits smaller and then larger (a and b ,where a<b) :1 10

2

3

5

7

# PROGRAM

// Name :Abhiram S

//Roll No 21003

//Class :R2

//Factorial of a number

#include<stdio.h>

#include<conio.h>

void main()

{

int f,i,n;

clrscr();

f=1;

i=1;

printf("Enter an integer");

scanf("%d",&n);

while(i<=n)

{

f=f\*i;

i=i+1;

}

printf("Factorial= %d",f);

getch();

}

------------------------------------OUTPUT------------------------------------------------

Enter an integer 5

Factorial= 120

# PROGRAM

// Name :Abhiram S

//Roll No 21003

//Class :R2

//sum of n numbers

#include<stdio.h>

#include<conio.h>

int main()

{

long long int n,i,big=0,temp=0;

printf("Enter how many numbers :");

scanf("%lld",&n);

printf("Enter a number :");

scanf("%lld",&big);

for(i=0;i<n-1;i++)

{

printf("Enter a number :");

scanf("%lld",&temp);

if(temp>big)

{

big=temp;

}

}

printf("%lld is biggest",big);

getch();

}

------------------------------------OUTPUT------------------------------------------------

Enter how many numbers :5

Enter a number :3423

Enter a number :45

Enter a number :234

Enter a number :45

Enter a number :565

3423 is biggest

# PROGRAM

// Name :Abhiram S

//Roll No 21003

//Class :R2

//Sum up to user enters 0

#include<stdio.h>

#include<conio.h>

void main()

{

int n,sum=0,i;

clrscr();

printf("Enter the numbers(Enter 0 to stop input)\n");

do

{

scanf("%d",&n);

sum=sum+n;

}while(n!=0);

printf("The sum of all the numbers is %d \n",sum);

getch();

}

------------------------------------OUTPUT------------------------------------------------

Enter the numbers(Enter 0 to stop input)

1

2

3

4

0

The sum of all the numbers is 10

# PROGRAM

//Sum avg max

// Name :Abhiram S

//Roll No 21003

//Class :R2

#include<stdio.h>

#include<conio.h>

void main()

{

int i=0;

float n,s=0,a,big=0;

clrscr();

label:

printf("Enter a number");

scanf("%f",&n);

s=s+n;

if(big<n)

big=n;

i++;

if(i<5)

goto label;

a=s/5;

printf("Sum= %f \n",s);

printf("Average =%f \n", a);

printf("Maximum =%f \n", big);

getch();

}

------------------------------------OUTPUT------------------------------------------------

Enter a number 2

Enter a number3

Enter a number4

Enter a number5

Enter a number6

Sum= 20.000000

Average =4.000000

Maximum =6.000000

# PROGRAM

//LCM and HCF

// Name :Abhiram S

//Roll No 21003

//Class :R2

#include<conio.h>

#include<stdio.h>

void main()

{

int a,b,n,d,lcm,gcd,r;

clrscr();

printf("Enter two numbers: \n");

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

if(a>b)

{

n=a;

d=b;

}

else

{

n=b;

d=a;

}

r=n%d;

while(r!=0)

{

n=d;

d=r;

r=n%d;

}

gcd=d;

lcm=a\*b/gcd;

printf("LCM is %d \n",lcm);

printf("GCD is %d \n",gcd);

getch();

}

------------------------------------OUTPUT------------------------------------------------

Enter two numbers:

3 6

LCM is 6

GCD is 3

# PROGRAM

// Name :Abhiram S

//Roll No 21003

//Class :R2

//AP

#include<stdio.h>

#include<conio.h>

#include<math.h>

void main()

{

float x,p,s=0;

int n,i,m,f,j,flag;

flag=1;

clrscr();

printf("Enter x and n:\n");

scanf("%f %d",&x,&n);

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

{

m=2\*i-1;

f=1;

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

f=f\*j;

p=pow(x,m);

s=s+((flag\*p)/f);

if(flag==1)

flag=-1;

else

flag=1;

}

printf("Sum of series is %f \n",s);

getch();

}

OUTPUT:

Enter x and n:

5 4

Sum of series is -5.292658

# PROGRAM

// Name :Abhiram S

//Roll No 21003

//Class :R2

//Cost

#include<stdio.h>

#include<conio.h>

void main()

{

floatcp,tot;

int op;

clrscr();

printf("\n 1.Engine \n 2.Pump \n 3.Fan");

printf("\n Enter an option:");

scanf("%d",&op);

printf("\n Enter the cost:");

scanf("%f",&cp);

switch(op)

{

case 1: if(cp>=15000)

tot=cp-cp\*0.1;

else

tot=cp;

printf("\n Total amount:%f",tot);

break;

case 2:if(cp>=12000)

tot=cp-cp\*0.2;

else

tot=cp;

printf("\n Total amount:%f",tot);

break;

case 3:if(cp>=13000)

tot=cp-cp\*0.3;

else

tot=cp;

printf("\n Total amount:%f",tot);

break;

default:printf("\n Invalid option");

}

getch();

}

------------------------------------OUTPUT------------------------------------------------

1.Engine

2.Pump

3.Fan

Enter an option:1

Enter the cost:20000

Total amount:18000.000000