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**EXPERIMENT -1**

**PROGRAM:**

*//Displaying negative no*

#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-positive value");

getch();

return 0;

}

***OUTPUT***

Enter a no:5

ERROR-positive value

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**EXPERIMENT-2**

**PROGRAM:**

*//Checking odd or even*

#include <stdio.h>

#include<conio.h>

main()

{

int a;

printf("enter a number");

scanf("%d",&a);

if(a%2==0)

printf("number is even");

else

printf("number is odd");

getch();

}

***OUTPUT***

enter a number

43

number is odd

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**EXPERIMENT-3**

**PROGRAM:**

***//****Quadratic equation*

#include<stdio.h>

#include<math.h>

main()

{

double det,real,imaginary,a,b,c,x1,x2;

printf("\nEnter the values of coefficiets a,b and c\n");

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

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

if(det>0)

{

x1=(-1\*b+sqrt(det))/(2\*a);

x2=(-1\*b-sqrt(det))/(2\*a);

printf("\nThe two real roots are %lf and %lf",x1,x2);

}

else if(det==0)

{

x1=-b/(2\*a);

printf("\nThe only root is %lf ",x1);

}

else

{

real=-1\*b/(2\*a);

imaginary=(sqrt(-det))/(2\*a);

printf("\nThe imaginary roots are %lf+%lfi and %lf-%lfi",real,imaginary,real,imaginary);

}

getch();

}

***OUTPUT***

Enter the values of coefficiets a,b and c

1

-5

6

The two real roots are 3.000000 and 2.000000

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**EXPERIMENT-4**

**PROGRAM:**

**//***Calculating simple interest*

#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();

}

***OUTPUT:***

Enter an integer 5

Factorial= 120

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**EXPERIMENT -5**

**PROGRAM:**

*//Finding the factorial of a no*

#include<stdio.h>

void main()

{

int n,i,fact=1;

printf("Enter the value of n:\n");

scanf("%d",&n);

i=n;

while(i>=1)

{

fact=fact\*i;

i=i-1;

}

printf("The factorial of %d is %d",n,fact);

getch();

}

***OUTPUT***

Enter the value of n:

5

The factorial of 5 is 120

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**EXPERIMENT -6**

**PROGRAM:**

//*finding the largest of n nos*

#include<stdio.h>

#include<conio.h>

void main()

{

int n,count,big,a;

clrscr();

printf("Enter how many numbers");

scanf("%d",&n);

count=0;

big=0;

while(count<n)

{

printf("Enter the number");

scanf("%d",&a);

if(a>big)

big=a;

count++;

}

printf("The largest number is %d",big);

getch();

}

***OUTPUT:***

Enter how many numbers 3

Enter the number1

Enter the number2

Enter the number3

The largest number is 3

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**EXPERIMENT -7**

**PROGRAM:**

//*sum of first n natural nos*

#include<stdio.h>

#include<conio.h>

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 of first %d natural nos",n);

getch();

}

***OUTPUT***

Enter the no:

10

55 is the sum of first n natural nos

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**EXPERIMENT -8**

**PROGRAM:**

***//****prime no.s in a given range*

#include<stdio.h>

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/2;j++)

if(i%j==0)

p=0;

if(p==1)

{

if(i==1)

printf("1 is neither prime nor composite");

else

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

}

}

getch();

}

***OUTPUT***

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

1

15

1 is neither prime nor composite

2

3

5

7

11

13

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**EXPERIMENT -9**

**PROGRAM:**

***//****adding no.s until 0 is entered*

#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

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**EXPERIMENT -10**

**PROGRAM:**

**//***multiplication table for a given range*

#include<conio.h>

#include<stdio.h>

int main()

{

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

printf("Enter the range, FIRST LOWER AND THEN UPPER:");

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();

}

Enter the range, FIRST LOWER AND THEN UPPER:

3 7

-----------START-----------

0 \* 3 = 0

1 \* 3 = 3

2 \* 3 = 6

3 \* 3 = 9

4 \* 3 = 12

5 \* 3 = 15

6 \* 3 = 18

7 \* 3 = 21

8 \* 3 = 24

9 \* 3 = 27

10 \* 3 = 30

-----------END-----------

-----------START-----------

0 \* 4 = 0

1 \* 4 = 4

2 \* 4 = 8

3 \* 4 = 12

4 \* 4 = 16

5 \* 4 = 20

6 \* 4 = 24

7 \* 4 = 28

8 \* 4 = 32

9 \* 4 = 36

10 \* 4 = 40

-----------END-----------

-----------START-----------

0 \* 5 = 0

1 \* 5 = 5

2 \* 5 = 10

3 \* 5 = 15

4 \* 5 = 20

5 \* 5 = 25

6 \* 5 = 30

7 \* 5 = 35

8 \* 5 = 40

9 \* 5 = 45

10 \* 5 = 50

-----------END-----------

-----------START-----------

0 \* 6 = 0

1 \* 6 = 6

2 \* 6 = 12

3 \* 6 = 18

4 \* 6 = 24

5 \* 6 = 30

6 \* 6 = 36

7 \* 6 = 42

8 \* 6 = 48

9 \* 6 = 54

10 \* 6 = 60

-----------END-----------

-----------START-----------

0 \* 7 = 0

1 \* 7 = 7

2 \* 7 = 14

3 \* 7 = 21

4 \* 7 = 28

5 \* 7 = 35

6 \* 7 = 42

7 \* 7 = 49

8 \* 7 = 56

9 \* 7 = 63

10 \* 7 = 70

-----------END-----------

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**EXPERIMENT -11**

**PROGRAM:**

//*nth term of an AP*

#include<stdio.h>

#include<conio.h>

void main()

{

int a,d,n,i;

clrscr();

printf("Enter first term, common difference, number of terms: \n");

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, common difference, number of terms:

1 2 2

2th term is 3

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**EXPERIMENT -12**

**PROGRAM:**

**//***to calculate total amount*

#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

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**EXPERIMENT -13**

**PROGRAM:**

**//***to find the sum average and maximum of nos*

#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

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**EXPERIMENT -14**

**PROGRAM:**

//*to find the LCM and GCD of two nos*

#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

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**EXPERIMENT -15**

**PROGRAM:**

//*to find the sum of given series*

#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