FREQUENTLY ASKED C PROGRAMS IN INTERVIEW

1. Write a c program to check whether the given number is a prime number or not

#include <stdio.h>

void main()

{

int n, i, flag = 0;

printf("Enter a positive integer: ");

scanf("%d", &n);

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

{

if(n%i == 0)

{

flag = 1;

break;

}

}

if (n == 1)

{

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

}

else

{

if (flag == 0)

printf("%d is a prime number.", n);

else

printf("%d is not a prime number.", n);

}

}

Output

Enter a positive integer : 2

2 is a prime number

1. Write a c program to check whether the given number is even or odd

#include <stdio.h>

int main()

{

int a;

printf("enter a number");

scanf("%d",&a);

if(a%2==0)

{

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

}

else

{

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

}

}

Output:

enter a number23

23 is an odd number

enter a number32

32 is an even number

1. Write a c program to check whether the given number is a palindrome or not

#include <stdio.h>

int main ()

{

/\*palindrome for a n digit number \*/

int n;

printf ("enter the number of digits in the number");

scanf ("%d", &n);

int a[n];

int i = 0;

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

{

printf ("enter the digit in the %dth position", i);

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

}

printf ("the number entered is ");

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

{

printf ("%d", a[i]);

}

int s = 0;

for (int j = n; j > 0; j--)

{

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

{

if (a[j] == a[i])

{

s = s + 1;

}

}

}

if (s == n)

{

printf ("it is a palindrome");

}

else

{

printf ("it is not a palindrome");

}

}

Output:

Enter the number of digits in the number 4

Enter the digit in the 4th position 4

Enter the digit in the 3rd position 3

Enter the digit in the 2nd position 2

Enter the digit in the 1st position 1

The number entered is 4321 it is not a palindrome

1. Write a c program to check whether the given string is a palindrome or not

#include <stdio.h>

#include <string.h>

void main()

{

char a[20];

int i, length;

int l = 0;

printf("enter a string");

scanf("%s", a);

length = strlen(a);

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

{

if(a[i] != a[length-i-1]){

l= 1;

break;

}

}

if (l) {

printf("%s is not a palindrome”, a);

}

else {

printf("%s is a palindrome”, a);

}

}

Output:

Enter a string madam

Madam is a palindrome

1. Write a c program to get the Fibonacci series of given range

#include<stdio.h>

void main()

{

int a,b,c,i,n;

printf("the values of n is ");

scanf("%d",&n);

i=0;

a=0;

b=1;

printf("%d\t",a);

printf("%d\t",b);

while(i<=n)

{

c=a+b;

a=b;

b=c;

printf("%d\t",c);

i=i+1;

}

}

Output

The value of n is 3

0 1 1 2 3 5

1. Write a c program to get the factorial of a given number

#include<stdio.h>

void main()

{

int n , i ;

printf("enter the value of n");

scanf("%d",&n);

int product=1;

i=1;

while(i<=n)

{

product=product\*i;

i=i+1;

}

printf("the factorial of the given number is %d",product);

}

Output :

Enter the value of n 5

The factorial of the given number is 120

1. Write a c program to find the GCD of two numbers

#include<stdio.h>

void main()

{

int a;

int b;

printf("enter the value of a ");

scanf("%d",&a);

printf("enter the value of b ");

scanf("%d",&b);

while ( b!= 0)

{

int temp = b;

b = a % b;

a = temp;

}

int gcd=a;

printf("the gcd of the two numbers is %d",a);

}

Output

Enter the value of a 48

Enter the value of b 18

The gcd of the two number is 6

AREA AND VOLUME

1. Write a C program to find the area of circle

#include<stdio.h>

void main()

{

int r;

printf("enter the radius");

scanf("%d",&r);

float area ;

area=3.14\*r\*r;

printf("the area of the circle %f",area);

}

Output

Enter the radius 3

The area of the circle is 28.260000

1. Write a c program to find area of a triangle

#include<stdio.h>

#include<math.h>

void main()

{

float a,b,c,s;

float area;

printf("the value of a ");

scanf("%f",&a);

printf("the value of b");

scanf("%f",&b);

printf("the value of c ");

scanf("%f",&c);

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

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

printf("the area is %f",area);

}

Output

The value of a 4

The value of b 3

The value of c 5

The area is 6.000000

1. Write a c program to find the area of an equilateral triangle

#include<stdio.h>

#include<math.h>

void main()

{

float a;

float area;

printf("the value of a ");

scanf("%f",&a);

area=((a\*a)/4)\*(sqrt(3));

printf("the area is %f",area);

}

Output

The value of a 2

The area is 1.732051

1. Write a c program to find the area of a right-angled triangle

#include<stdio.h>

#include<math.h>

void main()

{

float b;

float h;

float area;

printf("the value of b ");

scanf("%f",&b);

printf("the value of h");

scanf("%f",&h);

area=0.5\*b\*h;

printf("the area is %f",area);

}

Output

The value of b 4

The value of h 3

The area is 6

1. Write a c program to find the area of a rectangle

#include<stdio.h>

#include<math.h>

void main()

{

float b;

float h;

float area;

printf("the value of b ");

scanf("%f",&b);

printf("the value of h");

scanf("%f",&h);

area=b\*h;

printf("the area is %f",area);

}

Output

The value of b 2

The value of h 3

The area is 6

1. Write a c program to find the area of a trapezium

#include<stdio.h>

#include<math.h>

void main()

{

float b,a;

float h;

float area;

printf("the value of the shorter base -a ");

scanf("%f",&a);

printf("the value of the longer base - b");

scanf("%f",&b);

printf("the value of h");

scanf("%f",&h);

area=((a+b)/2)\*h;

printf("the area is %f",area);

}

Output

The value of the shorter base-a 4

The value of the longer base -b 6

The value of h 3

The area is 10.000000

1. Write a c program to find the area of a rhombus

#include<stdio.h>

#include<math.h>

void main()

{

float b,a;

float area;

printf("the value of the diagonal a ");

scanf("%f",&a);

printf("the value of the diagonal b ");

scanf("%f",&b);

area=((a\*b)/2);

printf("the area is %f",area);

}

Output

The value of the diagonal a 2

The value of the diagonal b 4

The area is 4.000000

1. Write a c program to find the area of a parallelogram

#include<stdio.h>

#include<math.h>

void main()

{

float b,h;

float area;

printf("the value of b ");

scanf("%f",&b);

printf("the value of h ");

scanf("%f",&h);

area=b\*h;

printf("the area is %f",area);

}

Output

The value of b 4

The value of h 6

The area is 24.000000

1. Write a c program to find the volume and surface area of a cube

#include<stdio.h>

#include<math.h>

void main ()

{

float a;

printf ("the value of a");

scanf ("%f", &a);

float volume;

float sa;

volume=a\*a\*a;

sa=6\*a\*a;

printf("the volume is %f\n",volume);

printf ("the surface area is %f",sa);

}

Output

The volume is 27.000000

The surface area is 54.000000

1. Write a c program to find the volume and surface area of cuboids

#include<stdio.h>

#include<math.h>

void main ()

{

float a,b,c;

printf ("the value of a");

scanf ("%f", &a);

printf ("the value of b");

scanf ("%f", &b);

printf ("the value of c");

scanf ("%f", &c);

float volume;

float sa;

volume=a\*b\*c;

sa=((a\*b)+(b\*c)+(c\*a))\*2;

printf("the volume is %f\n",volume);

printf ("the surface area is %f",sa);

}

Output

The value of a 2

The value of b 3

The value of c 4

The volume is 24.000000

The surface area is 52.000000

1. Write a c program to find the volume and surface area of cylinders

#include<stdio.h>

#include<math.h>

void main ()

{

float r,h;

printf ("the value of r");

scanf ("%f", &r);

printf ("the value of h");

scanf ("%f", &h);

float volume;

float sa;

volume=3.14\*r\*r\*h;

sa=(2\*3.14\*r\*(r+h));

printf("the volume is %f\n",volume);

printf ("the surface area is %f",sa);

}

Output

The value of r 2

The value of h 3

The volume is 37.680000

The surface area is 62.799999

1. Write a c program to find the surface area and volume of a cone

#include<stdio.h>

#include<math.h>

void main ()

{

float r,h;

printf ("the value of r");

scanf ("%f", &r);

printf ("the value of h");

scanf ("%f", &h);

float volume;

float sa;

volume=(0.333)\*3.14\*r\*r\*h;

sa=3.14\*r\*(r+h);

printf("the volume is %f\n",volume);

printf ("the surface area is %f",sa);

}

Output

The value of r 2

The value of h 3

The volume is 12.547440

The surface area is 31.400000

1. Write a c program to find the volume and surface area of a sphere

#include<stdio.h>

#include<math.h>

void main ()

{

float r;

printf ("the value of r");

scanf ("%f", &r);

float volume;

float sa;

volume=(4/3)\*3.14\*r\*r\*r;

sa=4\*3.14\*r\*r;

printf("the volume is %f\n",volume);

printf ("the surface area is %f",sa);

}

Output

The value of r 2

The volume is 25.120001

The surface area is 50.240002

1. Write a c program to find the perimeter of a circle , rectangle and triangle

#include<stdio.h>

void main()

{

/\*perimeter of circle\*/

float r;

printf("the value of r");

scanf("%f",&r);

float a1=2\*3.14\*r;

printf("the perimeter of a circle is %f\n",a1);

float b,h;

printf("the value of b");

scanf("%f",&b);

printf("the value of h");

scanf("%f",&h);

float a2=2\*(b+h);

printf("the perimenter of a rectangle is %f\n",a2);

/\*perimeter of a triangle\*/

float a,b1,c;

printf("the value of a");

scanf("%f",&a);

printf("the value of b1");

scanf("%f",&b1);

printf("the value of c");

scanf("%f",&c);

float a3=a+b+c;

printf("the perimenter of a triangle is %f\n",a3);

}

Output

The value of r 2

The perimeter of a circle is 12.560000

The value of b 1

The value of h 2

The perimeter of a rectangle is 6.000000

The value of a 1

The value of b1 1

The value of c 1

The perimeter of a triangle is 3.000000

C PROGRAM WITH NUMBERS

1. Write a c program to find out the lcm of two numbers

#include <stdio.h>

void main()

{

int i, a,b, max, lcm=1;

printf("the value of a and b ");

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

max = (a>b) ? a:b;

i = max;

while(1)

{

if(i%a==0 && i%b==0)

{

lcm = i;

break;

}

i += max;

}

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

}

Output

The value of a and b 2 3

Lcm is 6

1. Write the program to find the sum of digit of a given number

#include<stdio.h>

void main()

{

/\*applicable for 3 digits\*/

int a;

printf("enter a 3-digit number");

scanf("%d",&a);

int b=a%100;

int c=(a-b)/100;

int d=b%10;

int e=(b-d)/10;

printf("the digits are %d\t%d\t%d",c,e,d);

int sum=c+e+d;

printf("the sum of the digits is %d",sum);

}

Output

Enter a 3-digit number 123

The digits are 1 2 3

The sum of the digits is 6

1. Write a c program to find out power of a given number

#include<stdio.h>

void main()

{

int a,e;

printf("enter the base number");

scanf("%d",&a);

printf("enter the power");

scanf("%d",&e);

int i=1;

int product=1;

while(i<=e)

{

product=product\*a;

i=i+1;

}

printf("the answer is %d",product);

}

Output

Enter the base number 2

Enter the power 3

The answer is 8

1. Write a c program to add two numbers without using the addition operator

#include<stdio.h>

void main()

{

int a,b;

printf("the value of a");

scanf("%d",&a);

printf("the value of b");

scanf("%d",&b);

while (b!= 0)

{

int carry = a&b;

a=a^b;

b= carry << 1;

}

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

}

Output

The value of a 2

The value of b 3

The sum is 5

1. Write a c program to subtract two numbers without using subtraction operator

#include<stdio.h>

void main()

{

int a,b;

printf("the value of a");

scanf("%d",&a);

printf("the value of b");

scanf("%d",&b);

while (b!= 0)

{

int carry = (~a)&b;

a=a^b;

b= carry << 1;

}

printf("the difference is %d",a);

}

Output

The value of a 2

The value of b 1

The difference is 1

1. Write a c program to find the largest among three numbers using binary minus operator

#include<stdio.h>

void main()

{

int a,b,c;

printf("Enter 3 numbers");

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

if(a-b>0 && a-c>0)

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

else

if(b-c>0)

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

else

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

}

Output

Enter 3 numbers 1 2 3

Greatest is 3

1. Write a c program to find the largest among three numbers using conditional operator

#include<stdio.h>

void main()

{

int a,b,c;

printf("Enter 3 numbers");

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

int big= a>b?(a>c?a:c):(b>c?b:c);

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

}

Output

Enter 3 numbers 1 234 3423

The largest number is 3423

1. Write a c program to find out the prime factor of a given number

#include<stdio.h>

#include<math.h>

void main()

{

int n;

printf("the value of n ");

scanf("%d",&n);

while (n%2 == 0)

{

printf("%d\t",2);

n=n/2;

}

for(int i=3;i<=sqrt(n);i=i+2)

{

while(n%i==0)

{

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

n=n/i;

}

}

if(n>2)

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

}

Output

The value of n 24

2 2 2 3

1. Write a c program to find out the NCR factor of the given number

#include<stdio.h>

void main()

{

int n,r,ncr;

printf("2 numbers ");

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

ncr=fact(n)/(fact(r)\*fact(n-r));

printf("The NCR is ", ncr);

}

int fact(int n)

{

int i=1;

while(n!=0){

i=i\*n;

n--;

}

return i;

}

Output

2 numbers 2 1

The NCR is 2

1. Write a c program to convert string to int

#include<stdio.h>

int main()

{

const char \*str = "12345";

int x;

sscanf(str, "%d", &x);

printf("\nThe value of x : %d", x);

}

Output

The value of x : 12345

1. Write a c program to find out HCF of two numbers

#include<stdio.h>

void main()

{

int a;

int b;

printf("enter the value of a ");

scanf("%d",&a);

printf("enter the value of b ");

scanf("%d",&b);

while ( b!= 0)

{

int temp = b;

b = a % b;

a = temp;

}

int HCF=a;

printf("the HCF of the two numbers is %d",a);

}

Output

Enter the value of a 48

Enter the value of b 18

The HCF of the two number is 6

1. Write a c program to find largest of n numbers

#include<stdio.h>

void main()

{

int n;

printf("enter the value of n");

scanf("%d",&n);

int a[n];

int i;

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

{

printf("enter the %dth number",i);

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

}

printf("the numbers entered are\n ");

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

{

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

}

int large ;

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

{

for(int j=0;j<i;j++)

{

if(a[i]>a[j])

{

large=a[i];

}

}

}

printf("the largest is %d",large);

}

Output

Enter the value of n 3

Enter the 0th term 234

Enter the 1st term 4324897

Enter the 2nd term 9999999

The largest is 9999999

1. Write a c program Split number into digits

#include<stdio.h>

void main()

{

int n;

printf("enter the no. of digits in the no.");

scanf("%d",&n);

int a[n];

int i;

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

{

printf("enter the %dth digit",i);

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

}

printf("the digits are\n ");

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

{

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

}

}

Output

Enter the no. of digits in the no. 3

The 0th digit is 2

The 1st digit is 1

The 2nd digit is 3

The digits are 2 1 3

1. Write a c program to count the number of digits in each number

#include <stdio.h>

void main()

{

int a;

printf("enter the number");

scanf("%d",&a);

int count=0;

while(a!=0)

{

a=a/10;

count=count+1;

}

printf("the number of digits is %d",count);

}

Output

Enter the number 2345

The number of digits is 4

1. Write a c program to get the last two digits of the year

#include <stdio.h>

void main()

{

int a;

printf("enter the year");

scanf("%d",&a);

int yr=a%100;

printf("the last 2 digits are %d",yr);

}

Output

enter the year 2020

the last 2 digits are 20

1. Write a c program to count the total number of 7 coming between 1 to 100

#include<stdio.h>

void main()

{

int n;

int a,b,c;

int count=1;//as i am not considering single digits directly checking fromm double digits

for(n=10;n<100;n++)

{

a=n%10;

b=(n-a)/10;

c=a+b;

if(c==7)

{

count=count+1;

}

}

printf("the number of times the sum of the numbers is equal is 7 is %d",count);

}

Output

the number of times the sum of the numbers is equal is 7 is 8

1. Write a c program to compute quotient and remainder

#include<stdio.h>

void main()

{

int a,b;

printf("the value of a");

scanf("%d",&a);

printf("the value of b");

scanf("%d",&b);

int c=a%b;

int d=a/b;

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

printf("the quotient is %d",d);

}

Output

The value of a 28

The value of b 3

The remainder is 1

The quotient is 9

1. Write a c program to check leap year

#include<stdio.h>

void main()

{

int year;

printf("enter the year");

scanf("%d",&year);

if(year%400==0 && year%4==0)

{

printf("it is a leap year ");

}

else

{

printf("it is not a leap year");

}

}

Output

Enter the year 2400

It is a leap year

1. Write a c program to check whether a number is positive or negative

#include<stdio.h>

void main()

{

int a;

printf("enter the value of a");

scanf("%d",&a);

if(a>0)

{

printf("positive number");

}

if(a==0)

{

printf("it is 0");

}

if(a<0)

{

printf("negative number");

}

}

Output

Enter the value of a -20394

Negative number

1. Write a c program to count number of digits in an integer

#include <stdio.h>

void main()

{

int a;

printf("enter the number");

scanf("%d",&a);

int count=0;

while(a!=0)

{

a=a/10;

count=count+1;

}

printf("the number of digits is %d",count);

}

Output

Enter the number 2345

The number of digits is 4

SWAPPING

1. Write a c program to swap two numbers ;

#include<stdio.h>

void main()

{

int a,b;

printf("value of a");

scanf("%d",&a);

printf("value of b");

scanf("%d",&b);

int c;

c=b;

b=a;

a=c;

printf("the value of a %d\n",a);

printf("the value of b %d",b);

}

Output

Value of a 2

Value of b 3

The value of a 3

The value of b 2

1. Write a c program to swap two numbers without using third variable

#include<stdio.h>

void main()

{

int a,b;

printf("value of a");

scanf("%d",&a);

printf("value of b");

scanf("%d",&b);

a=a+b;

b=a-b;

a=a-b;

printf("the value of a %d\n",a);

printf("the value of b %d",b);

}

Output

Value of a 4

Value of b 3

The value of a 3

The value of b 4

1. Write a c program for swapping of two arrays

#include<stdio.h>

void main()

{

int n=5;

int a[n],b[n],c[n];

printf("enter the values in a[n]\n");

int i;

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

{

printf("enter the value");

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

}

printf("enter the values in b[n]\n");

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

{

printf("enter the value");

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

}

printf("the values in a[n] is\n ");

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

{

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

}

printf("the values in b[n] is \n");

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

{

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

}

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

{

c[i]=b[i];

}

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

{

b[i]=a[i];

}

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

{

a[i]=c[i];

}

printf("after swapping\n");

printf("the values in a[n] is \n");

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

{

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

}

printf("\n");

printf("the values in b[n] is\n ");

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

{

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

}

}

Output :

enter the values in a[n]

enter the value1 0

enter the value1

enter the value2

enter the value3

enter the value4

enter the values in b[n]

enter the value1

enter the value2

enter the value3

enter the value4

enter the value5

the values in a[n] is

0 1 2 3 4

the values in b[n] is

1 2 3 4 5

after swapping

the values in a[n] is

1 2 3 4 5

the values in b[n] is

0 1 2 3 4

1. Write a c program to swap two strings

#include<stdio.h>

#include<conio.h>

#include<string.h>

void main()

{

clrscr();

int i=0, j=0, k=0;

char str1[20], str2[20], temp[20];

printf("Enter the First String : ");

gets(str1);

printf("Enter the Second String : ");

gets(str2);

printf("Strings before swapping are :\n");

printf("String 1 = %s\n",str1);

printf("String 2 = %s\n",str2);

while(str1[i]!='\0')

{

temp[j]=str1[i];

i++;

j++;

}

temp[j]='\0';

i=0, j=0;

while(str2[i]!='\0')

{

str1[j]=str2[i];

i++;

j++;

}

str1[j]='\0';

i=0, j=0;

while(temp[i]!='\0')

{

str2[j]=temp[i];

i++;

j++;

}

str2[j]='\0';

printf("Strings after swapping : \n");

printf("String 1 = %s\n",str1);

printf("String 2 = %s\n",str2);

getch();

}

Output

Enter the first string: hi

Enter the second string :everyone

Strings before swapping :

String 1=hi

String 2=everyone

Strings after swapping :

String 1=everyone

String 2=hi

CONVERSION

1. Write a c program to convert decimal number to binary and vice versa

#include<stdio.h>

void main()

{

//decimal to binary conversion

int a;

printf("enter a number ");

scanf("%d",&a);

int z;

int x=a;

while(x/2>0)

{

z=x%2;

printf("%d\t",z);

x=x/2;

if(x/2==0)

{

int l=x%2;

printf("%d",l);

}

}

}

Output

Enter a number 29

1 1 1 0 1

#include<stdio.h>

#include<math.h>

void main()

{

//binary to decimal conversion

int n;

printf("Enter a binary number: ");

scanf("%d", &n);

int decimalNumber = 0, i = 0, remainder;

while (n!=0)

{

remainder = n%10;

n /= 10;

decimalNumber += remainder\*pow(2,i);

++i;

}

printf("%d",decimalNumber);

}

Output

Enter a binary number : 11101

29

1. Write a c program to convert decimal to an octal number and vice versa

#include<stdio.h>

void main()

{

//decimal to octal conversion

int a;

printf("enter a number ");

scanf("%d",&a);

int z;

int x=a;

while(x/8>0)

{

z=x%8;

printf("%d\t",z);

x=x/8;

if(x/8==0)

{

int l=x%8;

printf("%d",l);

}

}

}

Output

Enter a number 16

02

#include<stdio.h>

#include<math.h>

void main()

{

//octal to decimal conversion

int n;

printf("Enter an octal number: ");

scanf("%d", &n);

int decimalNumber = 0, i = 0, remainder;

while (n!=0)

{

remainder = n%8;

n /= 8;

decimalNumber += remainder\*pow(8,i);

++i;

}

printf("%d",decimalNumber);

}

Output

Enter an octal number 20

16

1. Write a c program to convert decimal number into hexadecimal number and vice versa

#include<stdio.h>

void main()

{

//decimal to hexadecimal conversion

int a;

printf("enter a number ");

scanf("%d",&a);

int z;

int x=a;

while(x/16>0)

{

z=x%16;

printf("%d\t",z);

x=x/16;

if(x/16==0)

{

int l=x%16;

printf("%d",l);

}

}

}

Output

Enter a number 16

10

#include<stdio.h>

#include<math.h>

void main()

{

//hexadecimal to decimal conversion

int n;

printf("Enter a hexadecimal number: ");

scanf("%d", &n);

int decimalNumber = 0, i = 0, remainder;

while (n!=0)

{

remainder = n%16;

n /= 16;

decimalNumber += remainder\*pow(16,i);

++i;

}

printf("%d",decimalNumber);

}

Output

Enter an octal number 10

16

1. Write a c program to convert octal to binary and vice versa

#include <stdio.h>

#include <math.h>

void main()

{

long int n1, n5,p=1;

long int dec=0,i=1,j,d;

long int binno=0;

printf("\n\nConvert Octal to Binary:\n ");

printf("Input an octal number (using digit 0 - 7) :");

scanf("%ld",&n1);

n5=n1;

for (j=n1;j>0;j=j/10)

{

d = j % 10;

if(i==1)

p=p\*1;

else

p=p\*8;

dec=dec+(d\*p);

i++;

}

i=1;

for(j=dec;j>0;j=j/2)

{

binno=binno+(dec % 2)\*i;

i=i\*10;

dec=dec/2;

}

printf("\nThe Octal Number : %ld\nThe equivalent Binary Number : %ld \n\n",n5,binno);

}

Output

Convert Octal to Binary:

Input an octal number (using digit 0 - 7) :123

The Octal Number : 123

The equivalent Binary Number : 1010011

1. Write a c program to convert octal to hexadecimal number

#include<stdio.h>

void main()

{

//octal to hexadecimal conversion

int n;

printf("enter an octal number");

scanf("%o",&n);

printf("the hexadecimal number is %x\n",n);

//hexadecimal to octal conversion

int a;

printf("enter a hexadecimal number");

scanf("%x",&a);

printf("the octal number is %o",a);

}

Output

Enter an octal number 22

The hexadecimal number is 12

Enter a hexadecimal number 12

The octal number is 22

1. Write a c program to convert currency or number to word

#include<stdio.h>

#include<stdio.h>

void main()

{

//works for 3-digit numbers

int n;

printf("enter a 3-digit number ");

scanf("%d",&n);

int a=n%100;

int b=(n-a)/100;

int c=a%10;

int d=(a-c)/10;

char s1[20];

if(b==1)

{

s1[20]="one hundered";

}

else if(b==2)

{

s1[20]="two hundered";

}

else if(b==3)

{

s1[20]="three hundered";

}

else if(b==4)

{

s1[20]"four hundered";

}

else if(b==5)

{

s1[20]="five hundered";

}

else if(b==6)

{

s1[20]="six hundered";

}

else if(b==7)

{

s1[20]="seven hundered";

}

else if(b==8)

{

s1[20]="eight hundered";

}

else if(b==9)

{

s1[20]="nine hundered";

}

else

{

s1[20]=" "

}

char s2[20];

if(d==1)

{

s2[20]="ten";

}

else if(d==2)

{

s2[20]="twenty";

}

else if(d==3)

{

s2[20]="thirty";

}

else if(d==4)

{

s2[20]="forty";

}

else if(d==5)

{

s2[20]="fifty";

}

else if(d==6)

{

s2[20]="sixty";

}

else if(d==7)

{

s2[20]="seventy";

}

else if(d==8)

{

s2[20]="eighty";

}

else if(d==9)

{

s2[20]="ninety";

}

else

{

s2[20]=" "

}

char s3[20];

if(c==1)

{

s3[20]="one";

}

else if(c==2)

{

s3[20]="two";

}

else if(c==3)

{

s3[20]="three";

}

else if(c==4)

{

s3[20]="four";

}

else if(c==5)

{

s3[20]="five";

}

else if(c==6)

{

s3[20]="six";

}

else if(c==7)

{

s3[20]="seven";

}

else if(c==8)

{

s3[20]="eight";

}

else if(c==9)

{

s3[20]="nine";

}

else

{

s3[20]=" "

}

printf("%s and %s %s\n",s1,s2,s3);

}

Output

Enter a 3-digit number 123

One hundred and twenty-three

1. Write a c program to convert each digits of a number into words

#include<stdio.h>

#include<stdio.h>

void main()

{

//works for 3-digit numbers

int n;

printf("enter a 3-digit number ");

scanf("%d",&n);

int a=n%100;

int b=(n-a)/100;

int c=a%10;

int d=(a-c)/10;

char s1[20];

if(b==1)

{

s1[20]="one hundered";

}

else if(b==2)

{

s1[20]="two hundered";

}

else if(b==3)

{

s1[20]="three hundered";

}

else if(b==4)

{

s1[20]"four hundered";

}

else if(b==5)

{

s1[20]="five hundered";

}

else if(b==6)

{

s1[20]="six hundered";

}

else if(b==7)

{

s1[20]="seven hundered";

}

else if(b==8)

{

s1[20]="eight hundered";

}

else if(b==9)

{

s1[20]="nine hundered";

}

else

{

s1[20]=" "

}

char s2[20];

if(d==1)

{

s2[20]="ten";

}

else if(d==2)

{

s2[20]="twenty";

}

else if(d==3)

{

s2[20]="thirty";

}

else if(d==4)

{

s2[20]="forty";

}

else if(d==5)

{

s2[20]="fifty";

}

else if(d==6)

{

s2[20]="sixty";

}

else if(d==7)

{

s2[20]="seventy";

}

else if(d==8)

{

s2[20]="eighty";

}

else if(d==9)

{

s2[20]="ninety";

}

else

{

s2[20]=" "

}

char s3[20];

if(c==1)

{

s3[20]="one";

}

else if(c==2)

{

s3[20]="two";

}

else if(c==3)

{

s3[20]="three";

}

else if(c==4)

{

s3[20]="four";

}

else if(c==5)

{

s3[20]="five";

}

else if(c==6)

{

s3[20]="six";

}

else if(c==7)

{

s3[20]="seven";

}

else if(c==8)

{

s3[20]="eight";

}

else if(c==9)

{

s3[20]="nine";

}

else

{

s3[20]=" "

}

printf("%s and %s %s\n",s1,s2,s3);

}

Output

Enter a 3-digit number 123

One hundred and twenty-three

1. Write a c program to convert a binary number into hexadecimal number

#include <stdio.h>

void main()

{

int bval, hexaval = 0, i = 1, remainder;

printf("Enter the binary number");

scanf("%d", &bval);

while (bval != 0)

{

remainder = bval % 10;

hexaval = hexaval + remainder \* i;

i = i \* 2;

bval = bval / 10;

}

printf(" hexadecimal value: %x", hexaval);

}

Output

Enter a binary number 11101

Hexadecimal value : 1d

1. Write a c program for the addition of two numbers

#include <stdio.h>

//function for Binary Addition

int binAddition(int a,int b)

{

int c; //carry

while (b != 0) {

//find carry and shift it left

c = (a & b) << 1;

//find the sum

a=a^b;

b=c;

}

return a;

}

int main()

{

int number1,number2, binAdd, binSub;

printf("Input first integer value: ");

scanf("%d",&number1);

printf("Input second integer value: ");

scanf("%d",&number2);

binAdd=binAddition(number1,number2);

printf("Binary Addition: %d\n",binAdd);

return 0;

}

Output

Input first integer value: 11

Input second integer value: 01

Binary Addition: 100

1. Write a c program to multiply two binary numbers

#include <stdio.h>

int binaryproduct(int, int);

int main()

{

long binary1, binary2, multiply = 0;

int digit, factor = 1;

printf("Enter the first binary number: ");

scanf("%ld", &binary1);

printf("Enter the second binary number: ");

scanf("%ld", &binary2);

while (binary2 != 0)

{

digit = binary2 % 10;

if (digit == 1)

{

binary1 = binary1 \* factor;

multiply = binaryproduct(binary1, multiply);

}

else

binary1 = binary1 \* factor;

binary2 = binary2 / 10;

factor = 10;

}

printf("Product of two binary numbers: %ld", multiply);

return 0;

}

int binaryproduct(int binary1, int binary2)

{

int i = 0, remainder = 0, sum[20];

int binaryprod = 0;

while (binary1 != 0 || binary2 != 0)

{

sum[i++] =(binary1 % 10 + binary2 % 10 + remainder) % 2;

remainder =(binary1 % 10 + binary2 % 10 + remainder) / 2;

binary1 = binary1 / 10;

binary2 = binary2 / 10;

}

if (remainder != 0)

{

sum[i++] = remainder;

}

--i;

while (i >= 0)

binaryprod = binaryprod \* 10 + sum[i--];

return binaryprod;

}

Output

Enter the first binary number: 111

Enter the second binary number: 1000

Product of two binary numbers: 11100

1. Write a c program to convert a decimal number into roman number and vice versa

#include<stdio.h>

#include<string.h>

void main()

{

char c;

printf("enter a roman number");

scanf("%c",&c);

switch(c)

{

case'I':printf("1");

break;

case'V':printf("5");

break;

case'X':printf("10");

break;

case'L':printf("50");

break;

case'C':printf("100");

break;

case'D':printf("500");

break;

case'M':printf("1000");

break;

default:printf("does numt exist");

}

}

Output

C

100

1. Write a c program for fractional decimal to binary fraction conversion

#include<stdio.h>

int main(){

long double fraDecimal,fraBinary,bFractional = 0.0,dFractional,fraFactor=0.1;

long int dIntegral,bIntegral=0;

long int intFactor=1,remainder,temp,i;

printf("Enter any fractional decimal number: ");

scanf("%Lf",&fraDecimal);

dIntegral = fraDecimal;

dFractional = fraDecimal - dIntegral;

while(dIntegral!=0){

remainder=dIntegral%2;

bIntegral=bIntegral+remainder\*intFactor;

dIntegral=dIntegral/2;

intFactor=intFactor\*10;

}

for(i=1;i<=6;i++){

dFractional = dFractional \* 2;

temp = dFractional;

bFractional = bFractional + fraFactor\* temp;

if(temp ==1)

dFractional = dFractional - temp;

fraFactor=fraFactor/10;

}

fraBinary = bIntegral + bFractional;

printf("Equivalent binary value: %lf",fraBinary);

return 0;

}

Output:

Enter any fractional decimal number: 5.7

Equivalent binary value: 101.101100