area of traiangle:

#include<stdio.h>

#include<math.h>

int main()

{

int a,b,c;

float s,d,area;

printf("enter three sides");

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

s=a+b+c/2;

d=(s\*(s-a)\*(s-b)\*(s-c));

area=sqrt(d);

printf("area of triangle=%f sqr roots\n",area);

return 0;

}

Armstrong:

#include<stdio.h>

int main()

{

int num,originalnum,remainder,result=0;

printf("enter the three digit number");

scanf("%d",&num);

originalnum=num;

while(originalnum!=0)

{

remainder=originalnum%10;

result+=remainder\*remainder\*remainder;

originalnum/=10;

}

if(result==num)

printf("%d is an armstrong number",num);

else

printf("%d is not an armstrong number",num);

return 0;

}

Factorial using recursion:

#include<stdio.h>

int main()

{

int n,result;

printf("enter the number");

scanf("%d",&n);

result=factorial(n);

printf("%d =%d",n,result);

return 0;

}

int factorial(int n)

{

if(n==0)

{

return 1;

}

else

{

return n\*factorial(n-1);

}

}

Reverse a number:

#include<stdio.h>

int main()

{

int number,remainder,reverse\_number=0;

printf("enter the number to reverse");

scanf("%d",&number);

while(number!=0)

{

remainder=number%10;

reverse\_number=reverse\_number\*10+remainder;

number=number/10;

}

printf("reverse number is %d",reverse\_number);

return 0;

}

Centigrade and farenheit:

#include<stdio.h>

#include<math.h>

int main()

{

float f,c,fn,cn;

printf("enter temperature in centigrade");

scanf("%f",&c);

f=1.8\*c+32;

printf("farenheit equivalent is %1f \n",f);

printf("enter temperature in farenheit");

scanf("%f",&fn);

cn=(fn-32)/1.8;

printf("centigrade equivalent is %1f \n",cn);

return 0;

}

Cube of nth value:

#include<stdio.h>

int main()

{

int i,n;

printf("enter the nth value");

scanf("%d",&n);

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

printf("%d",cube(i));

printf("\n");

}

int cube(int y)

{

return y\*y\*y;

}

Factorial without using recursion:

#include<stdio.h>

int main()

{

int n,i,fact=1;

printf("enter an integer");

scanf("%d",&n);

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

{

fact=fact\*i;

}

printf("%d",fact);

return 0;

}

Large and small elements in an array:

#include<stdio.h>

int main()

{

int a[50],n,i,large,small;

printf("how many elements");

scanf("%d",&n);

printf("enter the array");

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

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

large=small=a[0];

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

{

if(a[i]>large)

large=a[i];

if(a[i]<small)

small=a[i];

}

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

printf("the smallest element is %d \n",small);

return 0;

}

Matrix addition:

#include <stdio.h>

int main()

{

int r, c, a[100][100], b[100][100], sum[100][100], i, j;

printf("Enter the number of rows (between 1 and 100): ");

scanf("%d", &r);

printf("Enter the number of columns (between 1 and 100): ");

scanf("%d", &c);

printf("\nEnter elements of 1st matrix:\n");

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

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

{

printf("Enter element a%d%d: ", i + 1, j + 1);

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

}

printf("Enter elements of 2nd matrix:\n");

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

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

{

printf("Enter element b%d%d: ", i + 1, j + 1);

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

}

// adding two matrices

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

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

{

sum[i][j] = a[i][j] + b[i][j];

}

// printing the result

printf("\nSum of two matrices: \n");

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

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

{

printf("%d ", sum[i][j]);

if (j == c - 1)

{

printf("\n\n");

}

}

return 0;

}

Matrix multiplication:

#include<stdio.h>

int main()

{

int a[10][10],b[10][10],mul[10][10],r,c,i,j,k;

printf("enter the number of row=");

scanf("%d",&r);

printf("enter the number of column=");

scanf("%d",&c);

printf("enter the first matrix element=\n");

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

{

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

{

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

}

}

printf("enter the second matrix element=\n");

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

{

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

{

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

}

}

printf("multiply of the matrix=\n");

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

{

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

{

mul[i][j]=0;

for(k=0;k<c;k++)

{

mul[i][j]+=a[i][k]\*b[k][j];

}

}

}

//for printing result

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

{

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

{

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

}

printf("\n");

}

return 0;

}

Matrix values among three numbers:

#include<stdio.h>

int main()

{

int a,b,c;

printf("enter three numbers");

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

printf("maximum value is %d",maximum(a,b,c));

}

int maximum(int x,int y,int z)

{

int max=x;

if(y>max)

max=y;

if(z>max)

max=z;

return max;

}

Num of digits in a number:

#include<stdio.h>

int main()

{

int n,count=0;

printf("enter number");

scanf("%d",&n);

while(n>0)

{

n=n/10;

count++;

}

printf("no.of digits =%d",count);

return 0;

}

Perfect number:

#include<stdio.h>

int main()

{

int i,n,sum=0;

printf("enter the number");

scanf("%d",&n);

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

{

if(i%n==0)

sum=sum+i;

}

if(sum==n)

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

else

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

return 0;

}

Sqrt of a number:

#include<stdio.h>

#include<math.h>

int main()

{

float x;

printf("enter the value of x");

scanf("%f",&x);

printf("sqrt of %f is %f",x,sqrt(x));

return 0;

}

Sqrt of nth value:

#include<stdio.h>

int main()

{

int i,n;

printf("enter nth value");

scanf("%d",&n);

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

printf("%d",square(i));

printf("\n");

}

int square(int y)

{

return y\*y;

}

String palindrome:

#include<stdio.h>

#include<string.h>

int main()

{

char string[20];

int i,length;

int flag=0;

printf("enter a string");

scanf("%s",&string);

length = strlen(string);

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

{

if(string[i]!=string[length-i-1])

{

flag=1;

break;

}

}

if(flag)

{

printf("%s is not a palindrome",string);

}

else

{

printf("%s is a palindrome",string);

}

return 0;

}

Sum of first and last number:

#include<stdio.h>

int main()

{

int i,n,sum=0;

printf("enter number");

scanf("%d",&n);

int lastdigit=n%10;

while(n>=10)

{

n=n/10;

}

int firstdigit=n;

sum=firstdigit+lastdigit;

printf("sum of 1st &last digit %d",sum);

return 0;

}

Sum of series :

#include<stdio.h>

int main()

{

int i,j,n,s,term;

printf("enter the value n");

scanf("%d",&n);

s=0;

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

{

term=0;

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

{

term=term+j;

}

s=s+term;

}

printf("sum of the series=%d",s);

return 0;

}

Swapping of three numbers:

#include<stdio.h>

int main()

{

int a,b,c;

printf("enter the numbers");

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

printf("before swapping first number is %d second number is %d third number is %d\n",a,b,c);

int temp=a;

a=c;

c=b;

b=temp;

printf("after swapping first number is %d second number is %d third number is %d \n",a,b,c);

return 0;

}

Triangle or not:

#include<stdio.h>

int main()

{

int a,b,c;

printf("enter length of 3 sides of triangle");

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

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

{

printf("valid triangle \n");

if(a==b && b==c && c==a)

{

printf(" equilateral triangle");

}

else if(a==b || b==c || c==a)

{

printf("isosceles triangle");

}

else if(a!=b && b!=c && c!=a)

{

printf("scalene triangle");

}

else if((a\*a +b\*b ==c\*c) || (b\*b+c\*c == a\*a) || (c\*c+a\*a==b\*b))

{

printf("right angle triangle");

}

else

printf("triangle of 3 sides");

}

else

{

printf("invalid triangle");

}

return 0;

}

Voting:

#include<stdio.h>

int main()

{

int vote\_age;

printf("enter the age of a person");

scanf("%d",&vote\_age);

if(vote\_age<18)

{

printf("%d ia not eligible to vote",vote\_age);

}

else

{

printf("%d is eligible to vote",vote\_age);

}

return 0;

}

sh. area of a rectangle

#!/bin/Bash

echo "enter length"

read l

echo "enter base"

read b

area=$((l\*b))

echo "area of rectangle"=$area

sh. arthmatic operations

#!/bin/Bash

echo "enter a number"

read a

echo "enter a number"

read b

sum=$((a+b))

echo "sum="$sum

subtraction=$((a-b))

echo "subtraction="$subtraction

mult=$((a\*b))

echo "product="$mult

div=$((a/b))

echo "division="$div

sh. cube of a number

#!/bin/sh

echo "enter a number"

read a

cube=$((a\*a\*a))

echo "cube of "$a"="$cube

sh. display natural numbers

#!/bin/Bash

echo "enter a integer"

read m

a=1

echo "n natural numbers"

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

do

echo $a

done

sh. factorial of a number

#!/bin/Bash

echo "enter a number"

read num

fact=1

while [ $num -gt 1 ]

do

fact=$((fact \* num))

num=$((num -1))

done

echo "factorial is ="$fact

sh. largest among three numbers

#!/bin/Bash

echo "enter three numbers"

read a

read b

read c

if [$a -gt $b] && [$a -gt $c]

then

echo "$a is largest number"

else

echo "$c is largest number"

fi

sh. square of a number

#!/bin/sh

echo "enter a number"

read a

square=$((a\*a))

echo "square of "$a"="$square

sh. student marks

#!/bin/Bash

echo "enter number of students"

read n

a=1

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

do

echo "enter student"

read student

echo "english marks"

read english

echo "maths marks"

read maths

echo "science marks"

read science

sum=$(($english+$maths+$science))

per=$((100\*$sum/300))

echo "total="$sum

echo "percentage=" $per

done

sh. swapping of two numbers

#!/bin/Bash

echo "enter first number"

read first

echo "enter second number"

read second

temp=$first

first=$second

second=$temp

echo "after swapping"

echo "first number=$first,second number=$second"

negative numbers or positive:

#include<stdio.h>

int main()

{

int num;

scanf("%d",&num);

if(num == 0)

printf("Neither positive nor negative");

else if(num < 0)

printf("Negative");

else

printf("Positive");

return 0;

}

Simple intrest:

# include <conio.h>

# include <stdio.h>

# include <stdlib.h>

int main(){

//Simple interset program

int principal, rate, time, interest;

printf("Enter the principal: ");

scanf("%d", &principal);

printf("Enter the rate: ");

scanf("%d", &rate);

printf("Enter the time: ");

scanf("%d", &time);

interest = principal \* rate \* time / 100;

printf("The Simple interest is %d", interest);

return 0;

}

Length of string:

#include <stdio.h>

int main() {

char s[] = "Programming is fun";

int i;

for (i = 0; s[i] != '\0'; ++i);

printf("Length of the string: %d", i);

return 0;

}

Sum of elements:

#include<stdio.h>

int main()

{

//let's assume the maximum array size as 100.

//initialize sum as 0. Otherwise, it will take some garbage value.

int arr[100], size, i, sum = 0;

//Get size input from user

printf("Enter array size\n");

scanf("%d",&size);

//Get all elements using for loop and store it in array

printf("Enter array elements\n");

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

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

//add all elements to the variable sum.

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

sum = sum + arr[i]; // same as sum += arr[i];

//print the result

printf("Sum of the array = %d\n",sum);

return 0;

}

Sum of series:

#include<stdio.h>

int main() {

int n,i;

int sum=0;

printf("Enter the n i.e. max values of series: ");

scanf("%d",&n);

sum = (n \* (n + 1)) / 2;

printf("Sum of the series: ");

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

if (i!=n)

printf("%d + ",i); else

printf("%d = %d ",i,sum);

}

return 0;

}

Pattern :

#include <stdio.h>

int main() {

int i, j, rows;

printf("Enter the number of rows: ");

scanf("%d", &rows);

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

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

printf("\* ");

}

printf("\n");

}

return 0;

}

Even or odd:

#include <stdio.h>

int main() {

int num;

printf("Enter an integer: ");

scanf("%d", &num);

// true if num is perfectly divisible by 2

if(num % 2 == 0)

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

else

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

return 0;

}

Transpose of a matrix:

#include <stdio.h>

int main() {

int a[10][10], transpose[10][10], r, c;

printf("Enter rows and columns: ");

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

printf("\nEnter matrix elements:\n");

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

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

{

printf("Enter element a%d%d: ", i + 1, j + 1);

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

}

printf("\nEntered matrix: \n");

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

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

{

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

if (j == c - 1)

printf("\n");

}

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

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

{

transpose[j][i] = a[i][j];

}

printf("\nTranspose of the matrix:\n");

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

for (int j = 0; j < r; ++j) {

printf("%d ", transpose[i][j]);

if (j == r - 1)

printf("\n");

}

return 0;

}

Insert an element in an array:

#include <stdio.h>

int main()

{

int arr[100] = { 0 };

int i, x, pos, n = 10;

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

arr[i] = i + 1;

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

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

printf("\n");

x = 50;

pos = 5;

n++;

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

arr[i] = arr[i - 1];

arr[pos - 1] = x;

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

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

printf("\n");

return 0;

}

Prime or not:

#include<stdio.h>

**int** main(){

**int** n,i,m=0,flag=0;

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

scanf("%d",&n);

m=n/2;

**for**(i=2;i<=m;i++)

{

**if**(n%i==0)

{

printf("Number is not prime");

flag=1;

**break**;

}

}

**if**(flag==0)

printf("Number is prime");

**return** 0;

 }

Gcd:

#include <stdio.h>

int main()

{

int n1, n2, i, gcd;

printf("Enter two integers: ");

scanf("%d %d", &n1, &n2);

for(i=1; i <= n1 && i <= n2; ++i)

{

// Checks if i is factor of both integers

if(n1%i==0 && n2%i==0)

gcd = i;

}

printf("G.C.D of %d and %d is %d", n1, n2, gcd);

return 0;

}

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15