Programs

//Fibonacci Series

#include <stdio.h>

int main()

{

int first = 0, second = 1, sum = 0, n;

printf("Enter the end term for the series: ");

scanf("%d", &n);

printf("Fibonacci Series: %d, %d, ", first, second);

sum = first + second;

while(sum <= n)

{

printf("%d, ",sum);

first = second;

second = sum;

sum = first + second;

}

return 0;

}

//sum of ele in array

#include<stdio.h>

int main()

{

int array[] = {1,2,3,4,5,6,7};

int sum;

sum = sum\_array\_elements(array,6);

printf("\nSum of array elements is:%d",sum);

return 0;

}

int sum\_array\_elements( int arr[], int n )

{

if (n < 0)

{

return 0;

}

else

{

return arr[n] + sum\_array\_elements(arr, n-1);

}

}

//matrix is symmetric

#include <stdio.h>

int main()

{

int A[3][3], B[3][3];

int row, col, isSym;

printf("Enter the elements in matrix of size 3x3: \n");

for(row=0; row<3; row++)

{

for(col=0; col<3; col++)

{

scanf("%d", &A[row][col]);

}

}

for(row=0; row<3; row++)

{

for(col=0; col<3; col++)

{

B[row][col] = A[col][row];

}

}

isSym = 1;

for(row=0; row<3 && isSym; row++)

{

for(col=0; col<3; col++)

{

if(A[row][col] != B[row][col])

{

isSym = 0;

break;

}

}

}

if(isSym == 1)

{

printf("\n Matrix is Symmetric. \n");

for(row=0; row<3; row++)

{

for(col=0; col<3; col++)

{

printf("%d ", A[row][col]);

}

printf("\n");

}

}

else

{

printf("\n Matrix is not Symmetric.");

}

return 0;

}

//swap 2 numbers

#include<stdio.h>

void swap(int \*x,int \*y)

{

int t;

t = \*x;

\*x = \*y;

\*y = t;

}

int main()

{

int num1,num2;

printf("Enter value of num1: ");

scanf("%d",&num1);

printf("Enter value of num2: ");

scanf("%d",&num2);

printf("Before Swapping: num1 is: %d, num2 is: %d\n",num1,num2);

swap(&num1,&num2);

printf("After Swapping: num1 is: %d, num2 is: %d\n",num1,num2);

return 0;

}

//gcd & lcm

#include <stdio.h>

int main()

{

int a, b, x, y, t, gcd, lcm;

printf("Enter first number :");

scanf("%d", &a);

printf("Enter first number :");

scanf("%d", &b);

a = x;

b = y;

while (b != 0)

{

t = b;

b = a % b;

a = t;

}

gcd = a;

lcm = (x \* y)/gcd;

printf("Greatest common divisior of %d and %d = %d\n", x, y, gcd);

printf("Lowest common divisior of %d and %d = %d\n", x, y, lcm);

getch();

}

//add 2numbers by pointers

#include <stdio.h>

int main()

{

int first, second, \*p, \*q, sum;

printf("Enter two integers to add\n");

scanf("%d%d", &first, &second);

p = &first;

q = &second;

sum = \*p + \*q;

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

return 0;

}