DATA STRUCTURE by saagar.M

SUM OF ODD NUM IN GIVEN SET OF NUMBERS

#include <stdio.h>

int main() {

int n, sum = 0, number;

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

scanf("%d", &n);

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

{

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

scanf("%d", &number);

if (number % 2 != 0)

{

sum += number;

}

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

SUM OF NUM DIVISIBLE BY 8

#include <stdio.h>

int main() {

int n, sum = 0, number;

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

scanf("%d", &n);

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

{

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

scanf("%d", &number);

if (number % 8 == 0) {

sum += number;

}

}

printf("The sum of all numbers divisible by 8 is: %d\n", sum);

}

FIBONNAIC SERIES

int main() {

int n;

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

scanf("%d", &n);

int a = 0, b = 1, c;

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

printf("%d ", a);

c = a + b;

a = b;

b = c;

}}

SUM OF FIBONNAIC SERIES

#include <stdio.h>

int main()

{

int n;

int sum = 0;

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

scanf("%d", &n);

int a = 0, b = 1, c;

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

{

sum += a;

c = a + b;

a = b;

b = c;

}

printf("The sum of the first %d Fibonacci numbers is: %lld\n", n, sum);

}

FACTORIAL USING RECURSION

#include <stdio.h>

int fibonacci(int n) {

if (n <= 1)

return n;

else

return (fibonacci(n-1) + fibonacci(n-2));

}

int main()

{

int n;

printf("Enter the number of terms in the Fibonacci series: ");

scanf("%d", &n);

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

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

}

printf("\n");

return 0;

}

PRODUCT OF TWO NUM USING RECURSION

#include <stdio.h>

int product(int a, int b)

{

if (b == 0)

return 0;

else

return a + product(a, b - 1);

}

int main() {

int num1, num2;

printf("Enter the first number: ");

scanf("%d", &num1);

printf("Enter the second number: ");

scanf("%d", &num2);

int product\_value = product(num1, num2);

printf("The product of %d and %d is %d.\n", num1, num2, product\_value);

}

POWER OF A NUM USING RECURSION

int power(int m,int n)

{ if(m==0)

return 0;

else

return(m\*power(m,n-1);

}

int main()

{int m=2,n=3;

power(m,n);

}

Fibonnaic using recursion

#include <stdio.h>

int fibonacci(int n )

{

if (n <= 1)

return n;

return fibonacci(n - 1) + fibonacci(n - 2);

}

int main()

{

int n;

printf("Enter the number of terms in the Fibonacci series: ");

scanf("%d", &n);

printf("Fibonacci series: ");

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

{

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

}

printf("\n");

}

SUM OF TWO NUM

#include<stdio.h>

int main()

{

int a,b;

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

printf("sum=%d",a+b);

}

SUM OF 10 DIFF NUMBERS

#include <stdio.h>

int main()

{

int n,i,sum=0,num;

scanf("%d",&n);

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

{

scanf("%d",&num);

sum=sum+num;

}

printf("%d",sum);

}