Assignment no 11

1. #include<stdio.h>

int lcm(int , int);

int main(){

int n1,n2;

printf("Enter two numbers : ");

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

printf("%d",lcm(n1,n2));

if(n1==n2)

printf("The lcm of %d and %d is %d",n1,n2,n1);

else

printf("lcm of %d and %d is %d",n1,n2,lcm(n1,n2));

return 0;

}

int lcm(int n1,int n2){

int i;

if(n1>n2){

for(i=1;i<=n2;i++){

if(n1\*i%n2==0){

break;

}

}

return(n1\*i);

}

else{

for(i=1;i<=n1;i++){

if(n2\*i%n1==0){

break;

}

}

return(n2\*i);

}

}

2. #include<stdio.h>

int check( int, int);

int check2(int, int);

int main(){

int n1,n2;

printf("Enter two numbers : ");

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

if(n1==n2){

printf("hcf of %d and %d is %d",n1,n2,n1);

}

else if(n1>n2){

printf("hcf of %d and %d is %d",n1,n2,check(n1,n2));

}

else{

printf("hcf of %d and %d is %d",n1,n2,check2(n1,n2));

}

}

int check(int n1,int n2){

int d,i,h;

d=n1-n2;

if((n1%d==0)&&(n2%d==0)){

return(d);

}

else{

for(i=2;i<=d;i++){

h=d/i;

if((n1%h==0)&&(n2%h==0)){

break;

}

}

if((n1%h==0)&&(n2%h==0)){

return(h);

}

}

}

int check2(int n1,int n2){

int d,i,h;

d=n2-n1;

if((n1%d==0)&&(n2%d==0)){

return(d);

}

else{

for(i=2;i<=d;i++){

h=d/i;

if((n1%h==0)&&(n2%h==0)){

break;

}

}

if((n1%h==0)&&(n2%h==0)){

return(h);

}

}

}

3. #include<stdio.h>

int prime(int);

int main(){

int n,var;

printf("Enter any number : ");

scanf("%d",&n);

var=prime(n);

if(var==1){

printf("The number is prime");

}

else{

printf("the number is not a prime number");

}

return 0;

}

int prime(int n){

int i;

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

if(n%i==0){

break;

}

}

if(n%i==0){

return(0);

}

else{

return(1);

}

}

4. #include<stdio.h>

int prime(int);

int main(){

int n,var;

printf("Enter any number : ");

scanf("%d",&n);

n=n+1;

var=prime(n);

printf("%d",var);

return 0;

}

int prime(int n){

int i=2;

while(i){

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

if(n%i==0){

break;

}

}

if(n%i==0){

n=n+1;

}

else{

return(n);

}

}

}

5. #include<stdio.h>

void prime(int);

int main(){

int r;

printf("Enter a range of prime numbers : ");

scanf("%d",&r);

prime(r);

return 0;

}

void prime(int r){

int x=2,i;

while(r){

for(i=2;i<x;i++){

if(x%i==0){

break;

}

}

if(i==x){

printf("%d ",x);

r--;

}

x++;

}

}

6. #include<stdio.h>

void prime(int,int);

int main(){

int r,n;

printf("Enter a first and second number : ");

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

prime(r,n);

return 0;

}

void prime(int r,int n){

int x=n,i;

while(r>n){

for(i=2;i<x;i++){

if(x%i==0){

break;

}

}

if(i==x){

printf("%d ",x);

}

r--;

x++;

}

}

7.#include<stdio.h>

void fib(int );

int main(){

int N;

printf("Enter how many terms you want to print fibonacci series : ");

scanf("%d",&N);

fib(N);

return 0;

}

void fib(int n){

int count=n-2,i=1,k=1;

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

while(count){

k=k+i;

i=k-i;

printf("%d ",k);

count--;

}

}

8. #include<stdio.h>

int fact(int);

void pascal(int);

int combi(int,int);

int main(){

int n;

printf("Enter no of rows : ");

scanf("%d",&n);

pascal(n);

}

int fact(int n){

int i,facts=1;

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

facts=i\*facts;

}

return(facts);

}

int combi(int n,int r){

return fact(n)/(fact(r)\*fact(n-r));

}

void pascal(int n){

int i,j,k=1,l,r;

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

r=0;

for(j=0;j<2\*n;j++){

if(j>=n-i&&j<=n+i&&k){

printf("%d",combi(i,r));

k=0;

r++;

}

else{

printf(" ");

k=1;

}

}

printf("\n");

}

}

9. #include<stdio.h>

int square(int);

int main(){

int n,var;

printf("Enter any number : ");

scanf("%d",&n);

var=square(n);

printf("%d",var);

}

int square(int n){

return(n\*n);

}

10. #include<stdio.h>

int fact(int);

int main(){

int i,sum=0;

for(i=1;i<=5;i++){

sum=sum+fact(i)/i;

}

printf("%d ",sum);

}

int fact(int i){

int facts=1;

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

facts=facts\*i;

}

return(facts);

}