Assignment no 10

1. #include<stdio.h>

float cal(float, float);

int main(){

float pi=3.14,r,area;

printf("Enter the radius of the circle : ");

scanf("%f",&r);

area=cal(r, pi);

printf("Area of the circle is %.2f",area);

return 0;

}

float cal(float r, float pi){

return pi\*r\*r;

}

2. #include<stdio.h>

float cal(float, float, float);

int main(){

float p,r,t,si;

printf("Enter the principal amount, rate of interest, time : \n");

scanf("%f %f %f",&p,&r,&t);

si=cal(p,r,t);

printf("the simple interest is %.2f",si);

return 0;

}

float cal(float p, float r, float t){

return p\*r\*t/100;

}

3. #include<stdio.h>

int check(int );

int main(){

int n,res;

printf("Enter any number : ");

scanf("%d",&n);

res=check(n);

printf("%d",res);

return 0;

}

int check(int n){

if(n%2){

return 0;

}

else{

return 1;

}

}

4. #include<stdio.h>

void nat(int);

int main(){

int n;

printf("Enter the nth natural number : ");

scanf("%d",&n);

nat(n);

return 0;

}

void nat(int n){

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

printf("%d ",i);

}

}

5. #include<stdio.h>

void odd(int);

int main(){

int n;

printf("Enter how many first odd natural numbers you want : ");

scanf("%d",&n);

odd(n);

return 0;

}

void odd(int n){

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

if(i%2){

printf("%d ",i);

}

}

}

6. #include<stdio.h>

int cal(int);

int main(){

int n,fact;

printf("Enter a number to calculate its factorial : ");

scanf("%d",&n);

fact=cal(n);

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

return 0;

}

int cal(int n){

int collect=1;

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

collect=i\*collect;

}

return collect;

}

7. #include<stdio.h>

int combi(int,int);

long double fact(int);

int main(){

int n,r;

printf("Enter the value of n and r : ");

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

if(n>=r){

printf("%dC%d is %d",n,r,combi(n,r));

}

else{

printf("Wrong Input");

}

return 0;

}

int combi(int n,int r){

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

}

long double fact(int p){

long double facts=1;

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

facts=facts\*i;

}

return(facts);

}

8. #include<stdio.h>

long double fact(int);

int arr(int,int);

int main(){

int n,r;

printf("Enter the value of n and r : ");

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

printf("%dP%d is %d",n,r,arr(n,r));

return 0;

}

int arr(int n,int r){

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

}

long double fact(int p){

long double facts=1;

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

facts=facts\*i;

}

return(facts);

}

9. #include<stdio.h>

int check(int ,int );

int counts(int);

int main(){

int n,m,ans;

printf("Enter the number and the digit : ");

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

ans=check(n,m);

if(n==m){

printf("the given number contains the digit");

}

else if(ans){

printf("the given number contains the digit");

}

else{

printf("the given number doesn't contain the digit");

}

return 0;

}

int check(int n,int m){

int t;

t=counts(n);

if(n%t==m){

return(1);

}

while(n){

if(n/10==m){

break;

}

if(n%10==m){

break;

}

n=n/10;

}

if(n/10==m){

return(1);

}

else if(n%10==m){

return(1);

}

else{

return(0);

}

}

int counts(int p){

int count=1;

while(p>9){

p=p/10;

count=count\*10;

}

}

10. #include<stdio.h>

void check(int);

int main(){

int n;

printf("Enter any number : ");

scanf("%d",&n);

check(n);

return 0;

}

void check(int n){

int i;

for(i=2; n != 1; i++){

while(n%i==0){

n=n/i;

printf("%d ",i);

}

}

}