Assignment-10

1.Write a function to calculate the area of circle.(TSRS)

#include<stdio.h>

#include<stdlib.h>

float area(float);

int main()

{

int x;

float s;

printf("enter radius numbers");

scanf("%d",&x);

s=area(x);

printf("area is %f",s);

return 0;

}

float area(float r)

{

return (3.14\*r\*r);

}

2. Write a function to calculate simple interest.(TSRS)

#include<stdio.h>

#include<stdlib.h>

float simple(float,float,float);

int main()

{

float x,y,z;

float s;

printf("enter numbers");

scanf("%f%f%f",&x,&y,&z);

s=simple(x,y,z);

printf("simple is %f",s);

return 0;

}

float simple(float p,float r,float t)

{

float q;

q=p\*r\*t/100;

return(q);

}

3.write a function to check whether a given number is even or odd .return 1 if the number is even,otherwise return 0.(TSRS)

#include<stdio.h>

#include<stdlib.h>

int fun(int);

int main()

{

int ans,x;

printf("enter a numbers");

scanf("%d",&x);

ans=fun(x);

if(ans==1)

printf("%d is even",x);

if(ans==0)

printf("%d is odd",x);

return 0;

}

int fun(int n)

{

if(n%2==0)

return 1;

else

return 0;

}

4.write a function to print first N natural numbers (TSRN)

#include<stdio.h>

void natural(int n)

{

int i;

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

{

printf("%d,",i);

}

}

int main()

{

natural(10);

return 0;

}

5. write a function to print first N odd natural numbers (TSRN)

#include<stdio.h>

void natural(int n)

{

int i,s;

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

{

s=2\*i-1;

printf("%d,",s);

}

}

int main()

{

natural(10);

return 0;

}

6. write a function to calculate factorial of numbers(TSRS)

#include<stdio.h>

int fact(int n)

{

int i,fact=1;

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

fact=fact\*i;

return fact;

}

int main()

{

printf("%d",fact(5));

return 0;

}

7.write a function to calculate number of combination one can make from n items and r selected at a time(TSRS)

#include<stdio.h>

int fact(int n)

{

int i,fact=1;

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

fact=fact\*i;

return fact;

}

int comb(int n,int r)

{

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

}

int main()

{

printf("%d",comb(5,2));

return 0;

}

8. write a function to calculate number of arragement one can make from n items and r selected at a time(TSRS)

#include<stdio.h>

int fact(int n)

{

int i,fact=1;

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

fact=fact\*i;

return fact;

}

int comb(int n,int r)

{

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

}

int perm(int n,int r)

{

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

}

int main()

{

printf("%d",comb(5,2));

return 0;

}

9.write a function ti check whether a number contains a given digit or not.(TSRS)

10.write a function to print all prime factors of a given number.for example,if the number is 36 then your result should be 2,2,3,3.(TSRS)

#include<stdio.h>

void perifact(int n)

{

int i;

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

{

while(n%i==0)

{

n=n/i;

printf("%d,",i);

}

}

}

int main()

{

perifact(36);

return 0;

}