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

#include<stdio.h>

float area(float r)

{

   return(3.14\*r\*r);

}

int main()

{

   float radius;

   printf("Enter radius: ");

   scanf("%f",&radius);

   printf("Area is %f",area(radius));

}

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

#include<stdio.h>

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

{

   return(r\*p\*t/100);

}

int main()

{

   float rate,p\_amount,time;

   printf("Enter rate per month and principal amount and time: ");

   scanf("%f%f%f",&rate,&p\_amount,&time);

   printf("simple interest is %f",simple\_interest(rate,p\_amount,time));

}

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>

int evenodd(int number)

{

   if(number%2==0)

     return 1;

   else

     return 0;

}

int main()

{

   int num,r;

   printf("Enter a number: ");

   scanf("%d",&num);

   r=evenodd(num);

   if(r==1)

     printf("Number is even");

   else

     printf("Number is odd");

}

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

#include<stdio.h>

void natural\_num(int number)

{

   int i;

   for(i=1;i<=number;i++)

    printf("%d ",i);

}

int main()

{

   int num;

   printf("Enter a number: ");

   scanf("%d",&num);

   natural\_num(num);

}

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

#include<stdio.h>

void odd\_natural\_num(int number)

{

   int i;

   for(i=1;i<=number;i++)

    printf("%d ",2\*i-1);

}

int main()

{

   int num;

   printf("Enter a number: ");

   scanf("%d",&num);

   odd\_natural\_num(num);

}

6. Write a function to calculate the factorial of a number. (TSRS).

#include<stdio.h>

int fact(int number)

{

   int i,f=1;

   for(i=1;i<=number;i++)

    f=f\*i;

   return f;

}

int main()

{

   int num;

   printf("Enter a number: ");

   scanf("%d",&num);

   printf("Factorial is %d",fact(num));

}

7. Write a function to calculate the number of combinations one can make from n items

and r selected at a time. (TSRS).

8. Write a function to calculate the number of arrangements one can make from n items

and r selected at a time. (TSRS).

9. Write a function to check whether a given number contains a given digit or not.

(TSRS).

#include<stdio.h>

int contain(int d,int n)

{

   int i;

     while(n>0)

     {

      if(n%10==d){

       return 1;

       break;}

      else

       n=n/10;

     }

}

int main()

{

   int digit,num,r;

   printf("Enter digit and number: ");

   scanf("%d%d",&digit,&num);

   r=contain(digit,num);

   if(r==1)

    printf("y");

   else

    printf("N");

}

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. (TSRN).