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

Ans. #include<stdio.h>

float A(int);

int main()

{

int r;

float a;

printf("Enter redius of circle : ");

scanf("%d",&r);

a=A(r);

printf("Area is %f",a);

return 0;

}

float A(int x)

{

return (3.14\*x\*x);

}

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

Ans. #include<stdio.h>

float I(int,int,int);

int main()

{

int p,r,t;

float i;

printf("Enter Amount: ");

scanf("%d",&p);

printf("Enter Rate of interest: ");

scanf("%d",&r);

printf("Enter Time: ");

scanf("%d",&t);

i= I(p,r,t);

printf("Simple Interest is %f",i);

return 0;

}

float I(int a,int b, int c)

{

return (a\*b\*c\*0.01);

}

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)

Ans #include<stdio.h>

int f(int);

int main()

{

int x;

printf("Enter a number: ");

scanf("%d",&x);

printf("%d",f(x));

return 0;

}

int f(int a)

{

if(a%2==0)

return 1;

else

return 0;

}

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

Ans #include<stdio.h>

void a(int);

int main()

{

int n;

printf("Enter a number: ");

scanf("%d",&n);

a(n);

return 0;

}

void a(int x)

{

int i;

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

printf("%d ",i);

}

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

Ans #include<stdio.h>

void y(int);

int main()

{

int n;

printf("Enter a number: ");

scanf("%d",&n);

y(n);

return 0;

}

void y(int a)

{

int i;

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

{

if(i%2!=0)

printf("%d ",i);

}

}

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

Ans #include<stdio.h>

int fact(int);

int main()

{

int n;

printf("Enter a number: ");

scanf("%d",&n);

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

return 0;

}

int fact(int a)

{

int i,s=1;

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

{

s=s\*i;

}

return s;

}

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

Ans #include<stdio.h>

int fact(int);

int comb(int,int);

int main()

{

int n,r;

printf("Enter a number: ");

scanf("%d",&n);

printf("Enter a number: ");

scanf("%d",&r);

printf("Number of Combination is %d",comb(n,r));

return 0;

}

int fact(int a)

{

int i,s=1;

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

{

s=s\*i;

}

return s;

}

int comb(int n,int r)

{

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

}

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

Ans #include<stdio.h>

int fact(int);

int arrang(int,int);

int main()

{

int n,r;

printf("Enter a number: ");

scanf("%d",&n);

printf("Enter a number: ");

scanf("%d",&r);

printf("Number of arrangements is %d",arrang(n,r));

return 0;

}

int fact(int a)

{

int i,s=1;

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

{

s=s\*i;

}

return s;

}

int arrang(int n,int r)

{

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

}

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

Ans #include<stdio.h>

int check(int,int);

int main()

{

int a,b;

printf("Enter a number: ");

scanf("%d",&a);

printf("Enter a digit: ");

scanf("%d",&b);

printf("%d",check(a,b));

return 0;

}

int check(int n,int d)

{

int i,rem;

for(i=n;i>0;i--)

{

rem=n%10;

if(rem==d)

return 1;

n=n/10;

}

return 0;

}

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)

Ans #include<stdio.h>

void primefact(int n)

{

int i;

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

{

while(n%i==0)

{

printf("%d ",i);

n=n/i;

}

}

}

int main()

{

int n;

printf("Enter a Number: ");

scanf("%d",&n);

primefact(n);

return 0;

}