



Q) write a function to calculate the area of circle
(TSRS)

Ans #include < stdio.h >
float area(int);
int main()

{

int radius;
float area

printf (" Enter a number");

scanf ("%d", &radius);

area = area(radius)

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

}

float area (int r)

{

return (3.14 * r * r);

}

Output :

Enter a number: 2

Area of circle is 12.5600



(2) write a function to calculate Simple interest
(TSRS)

Ans

```
#include <stdio.h>
float Simple (int, int, int);
int main()
{
    int p, t, r;
    float in;
```

```
    printf ("Enter amount, time and rate");
    scanf ("%d %d %d", &p, &t, &r);
    in = Simple (p, t, r);
    printf ("Simple interest is %.f", in);
```

```
float Simple (int p, int t, int r)
{
```

```
    float in = (p * t * r) / 100.0;
    return in;
}
```

Output:

Enter amount, time and rate:

500 5 5

Simple interest is 125.00.

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(1) 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 Even_Odd(int);

int main()

{

 int a;

 printf("Enter a number:");

 scanf("%d", &a);

 if (Even_Odd(a))

 printf("Even Number");

 else

 printf("Odd Number");

}

int Even_Odd(int b)

{

 if (b % 2 == 0)

 return 1;

 else

 return 0;

}

Output:

Enter a number: 5

Odd Number

Date _____

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

Ans #include <stdio.h>

int main()

void Natural (int);

int main()

{

int a;

printf ("Enter a Number:");

scanf ("%d", &a);

Natural (a);

return 0;

void Natural (int b)

{

int i;

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

{

printf ("%d", i);

Output:

Enter a Number: 5

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

Ans

```
#include <stdio.h>
int main()
{
    void Natural(int);
    int a;
    printf("Enter a natural Number");
    scanf("%d", &a);
    Natural(a);
}

void Natural(int b)
{
    int i;
    for(i=1; i<=b; i++)
    {
        printf("%d", i);
    }
}
```

Output: Enter a Natural Number: 5
1 3 5 7 9



(e) write a function to calculate the factorial of a number (TSRS).

Aus

```
#include <stdio.h>
```

```
int main()
```

```
{
```

```
    int a, k;
```

```
    printf("Enter a number:");
```

```
    scanf("%d", &a);
```

```
    k = fact(a);
```

```
    printf("Factorial is %d", k);
```

```
}
```

```
(2) #include <int> fact(int b)
```

```
{
```

```
    int fac = 1, i;
```

```
    for(i=1; i<=b; i++)
```

```
{
```

```
    if(i > d - i + 1) break;
```

```
    fact = fact * i;
```

```
}
```

```
return (fac);
```

Output:

```
Enter a Number: 5
Factorial is 120.
```

Q7) write a function to calculate the number of combinations one can make from n items and t selected at a time \leftarrow (TSRS).

Ans

```
#include <stdio.h>
int comb(int, int);
int fact(int);
int main()
{
    double n, x, k;
    printf("Enter two Numbers (n,x)=:");
    scanf("%d %d", &n, &x);
    k = comb(n, x);
    printf("Combination is =%f", k);
}
```

int fact (int b)

{

```
int i, fact=1;
```

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

fact = fact * i;

return (fact);

int comb (int s, int t)
{
 return (fact(s)) / ((fact(s-t)) * fact(t));
}

Output: Enter two numbers (n,x)=:
10 3

combination is 120.



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Q) write a function to calculate the number of arrangements one can make from n items and k selected at a time. (TSRS).

```

Ans #include <stdio.h>
int fact (int, int);
int main()
{
    int n, x, k;
    printf ("Enter two Number (n,x) -> : ");
    scanf ("%d %d", &n, &x);
    k = fact (n, x);
    printf ("Arrangement calculate : %d", k);

    int fact (int b)
    {
        int i, fac = 1;
        for (i = 1; i <= b; i++)
        {
            fac = fac * i;
        }
        return (fac);
    }

    int fact (int s, int t)
    {
        return (fact (s) / fact (s-t));
    }
}

```

Output :

Enter two Number
(n,x) -> : 6 2

Arrangement
calculate : 30.



Q9 write a function to calculate Lcm of two numbers. (TSRS)

Ans #include <stdio.h>

int main()

int lcm (int, int);

int main()

int a, b, K;

printf ("Enter two numbers");

scanf ("%d %d", &a, &b);

K = lcm(a, b);

printf ("Lcm of Two Numbers is : %d", k);

{

int

for (i=1; i<=c*d; i++)

{

{

if (i*c == 0 || i*d == 0)

{

return i;

}

Output: Enter two numbers: 4 2

Lcm is 4

~~(Q)~~ 11) write a function to find the next prime check whether a given number is prime or not. (TSRS).

Ans

```
#include <stdio.h>
int pxi(int);
int main()
{
    int a;
    printf("Enter a number");
    scanf("%d", &a);
    if (pxi(a)) {
        printf(" prime number");
    } else {
        printf(" Not prime");
    }
}

int pxi(int b)
{
    int i;
    for(i=2; i<=b; i++)
    {
        if (b % i == 0)
            break;
    }
    return i == b;
}
else
    return 0;
```

Output:

Enter a number

5

Prime Number

