



USE ANY LOOPS

ASSIGNMENT 6



Q. write a program to calculate sum of first N natural number.

```
#include<stdio.h>

int main()
{
    int i,n,sum=0;
    printf("enter a N number:");
    scanf("%d",&n);
    for(i=1;i<=n;i++)

    {
        sum=sum+i;
    }

    printf("Sum of first natural numbers is: %d", sum);
    return 0;
}
```

Q.write a program to calculate sum of first N even natural number.

```
#include<stdio.h>

int main()
{
    int i,n,sum=0;
    printf("enter a N number:");
    scanf("%d",&n);
    for(i=1;i<=n;i++)

    {
        if(i%2==0)
        {
            sum=sum+i;
        }
    }
}
```

```

    }

    }

    printf("Sum of first even natural numbers is: %d", sum);

    return 0;

}

```

Q.write a program to calculate sum of first N odd natural number.

```

#include<stdio.h>

int main()
{
    int i,n,sum=0;

    printf("enter a N number:");

    scanf("%d",&n);

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

        {

            if(i%2!=0)

            {

                sum=sum+i;

            }

        }

    printf("Sum of first odd natural numbers is: %d", sum);

    return 0;

}

```

Q.write a program to calculate sum of square of first N natural number.

```

#include<stdio.h>

int main()

```

```

{
    int i,n,sum=0;
    printf("enter a N number:");
    scanf("%d",&n);
    for(i=1;i<=n;i++)
    {
        sum=sum+i*i;
    }

    printf("Sum of square of first natural numbers is: %d", sum);
    return 0;

}

```

Q.write a program to calculate sum of cubes of first N natural number.

```

#include<stdio.h>
int main()
{
    int i,n,sum=0;
    printf("enter a N number:");
    scanf("%d",&n);
    for(i=1;i<=n;i++)
    {
        sum=sum+i*i*i;
    }
    printf("Sum of cubes of first natural numbers is: %d", sum);
    return 0;

}

```

Q.write a program to calculate factorial of a number.

```
#include<stdio.h>

int main()
{
    int i=2,n,fact=1;
    printf("enter any N number:");
    scanf("%d",&n);
    while(i<=n)

    {
        fact=fact*i;
        i++;
    }
    printf("factorial of %d is : %d",n,fact);
    return 0;
}
```

Q.write a program to count digits in a given number.

```
#include<stdio.h>

int main()
{
    int x,count=0;
    printf("enter a number:");
    scanf("%d",&x);
    while(x!=0)
    {
        x=x/10;
        count++;
    }
    printf("total digit=%d",count);
}
```

```
        return 0;
    }
}
```

Q.write a program to check whether a given number is prime or not?

```
#include<stdio.h>

int main()
{
    int i,x;
    printf("enter a number:");
    scanf("%d",&x);
    for(i=2;i<=x-1;i++)
        if (x%i==0)
            break;
    if(i==x)
        printf("%d is a prime number",x);
    else
        printf("%d is not a prime number",x);
    return 0;
}
```

Q.write a program to calculate LCM of two number.

```
#include<stdio.h>

int main()
{
    int a,b,l;
    printf("enter two number:");
    scanf("%d%d",&a,&b);
    for(l=1;l<=a*b;l++)
        if(l%a==0&&l%b==0)
            break;
    printf("LCM is %d",l);
}
```

```
        return 0;
    }
}
```

Q.write a program to reverse a given number.

```
#include<stdio.h>

int main()
{
    int x,y=0,r;
    printf("enter a number:");
    scanf("%d",&x);
    while(x!=0)
    {
        r=x%10;
        y=y*10+r;
        x=x/10;
    }
    printf("reverse is %d",y);
    return 0;
}
```