

1. Write a program to calculate sum of first N natural numbers

Ans.

```
#include <stdio.h>

int main()
{
    int n, i, sum;
    printf("Enter the value of n:");
    scanf("%d", &n);
    for (i = 1, sum = 0; i <= n; i++)
    {
        sum = sum + i;
    }
    printf("Sum is %d", sum);
    return 0;
}
```

2. Write a program to calculate sum of first N even natural numbers

Ans.

```
#include <stdio.h>

int main()
{
    int n, i, sum;
    printf("Enter the value of n:");
    scanf("%d", &n);
    for (i = 1, sum = 0; i <= n; i++)
    {
        sum = sum + i * 2;
    }
    printf("Sum of first n even natural numbers is:%d", sum);
    return 0;
}
```

3. Write a program to calculate sum of first N odd natural numbers

Ans.

```
#include <stdio.h>

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

    printf("Enter the value of n:");

    scanf("%d", &n);

    for (i = 1, sum = 0; i <= n; i++)
    {
        sum = (sum + (i * 2 - 1));
    }

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

    return 0;
}
```

4. Write a program to calculate sum of squares of first N natural numbers

Ans.

```
#include <stdio.h>

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

    printf("Enter the value of n:");

    scanf("%d", &n);

    for (i = 1, sum = 0; i <= n; i++)
    {
        sum = (sum + (i * i));
    }

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

    return 0;
}
```

5. Write a program to calculate sum of cubes of first N natural numbers

Ans.

```

#include <stdio.h>

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

    printf("Enter the value of n:");

    scanf("%d", &n);

    for (i = 1, sum = 0; i <= n; i++)
    {
        sum = (sum + (i * i * i));
    }

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

    return 0;
}

```

6. Write a program to calculate factorial of a number

Ans.

```

#include <stdio.h>

int main()
{
    int num, fact = 1;

    printf("Enter a number:");

    scanf("%d", &num);

    while (num)
    {
        fact = fact * num;

        num--;
    }

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

    return 0;
}

```

7. Write a program to count digits in a given number

Ans.

```

#include <stdio.h>

int main()
{
    int num, count = 0;
    printf("Enter a number:");
    scanf("%d", &num);
    while (num)
    {
        num = num / 10;
        count++;
    }
    printf("Number of digits in this numbers is:%d", count);
    return 0;
}

```

8. Write a program to check whether a given number is a Prime number or not

Ans.

```

#include <stdio.h>

int main()
{
    int num, i;
    printf("Enter a number:");
    scanf("%d", &num);
    for (i = 2; i <= num / 2; i++)
    {
        if (num % i == 0)
            break;
    }
    if (i == num / 2 + 1)
        printf("%d is a prime number", num);
    else
        printf("%d is not a prime number", num);
}

```

```
    return 0;
}
```

9. Write a program to calculate LCM of two numbers

Ans.

```
#include <stdio.h>

int main()
{
    int a, b, i, lcm;
    printf("Enter two numbers:");
    scanf("%d%d", &a, &b);
    for (i = a; i <= a * b; i++)
    {
        if (i % a == 0 && i % b == 0)
        {
            lcm = i;
            break;
        }
    }
    printf("LCM of %d and %d is %d", a, b, lcm);
    return 0;
}
```

10. Write a program to reverse a given number

Ans.

```
#include <stdio.h>

int main()
{
    int num, temp = 0;
    printf("Enter a number:");
    scanf("%d", &num);
    printf("User has entered:%d\n", num);
    while (num)
```

```
{  
    temp = temp * 10 + num % 10;  
    num = num / 10;  
}  
num = temp;  
printf("After reversing it the number becomes:%d", num);  
return 0;  
}
```