

1) First 10 natural number.

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

```
int main () {
```

```
    for (int i = 1 ; i <= 10 ; i++) {
```

```
        printf ("%d\n", i);
```

```
}
```

```
    return 0;
```

```
}
```

2) first 10 odd number.

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

```
int main () {
```

```
    for (int i = 1 ; i <= 10 ; i++) {
```

```
        printf ("%d\n", 2 * i - 1);
```

```
}
```

```
    return 0;
```

```
}
```

3) first 10 even number.

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

```
int main () {
```

```
    for (int i = 1 ; i <= 10 ; i++) {
```

```
        printf ("%d\n", 2 * i);
```

```
}
```

```
    return 0;
```

```
}
```

4) First n natural numbers.

```
#include <stdio.h>
int main () {
    int n;
    printf ("Enter n:");
    scanf ("%d", &n);
    for (int i=1; i<=n; i++) {
        printf ("%d\n", i);
    }
    return 0;
}
```

5) First n odd numbers.

```
#include <stdio.h>
int main () {
    int n;
    printf ("Enter n:");
    scanf ("%d", &n);
    for (int i=1; i<=n; i++) {
        printf ("%d\n", 2*i-1);
    }
    return 0;
}
```

6) First n even number

```
# include <stdio.h>
int main () {
    int n;
    printf ("Enter n:");
    scanf ("%d", &n);
    for (int i=1; i<=n; i++) {
        printf ("%d\n", 2*i);
    }
    return 0;
}
```

7) Sum of n natural numbers

```
# include <stdio.h>
int main () {
    int n, sum=0;
    printf ("Enter n:");
    scanf ("%d", &n);
    for (int i=1; i<=n; i++) {
        sum += i;
    }
    printf ("sum = %d\n", sum);
    return 0;
}
```

8) Print sum of first n odd numbers.

```
#include <stdio.h>
int main () {
    int i, n, sum = 0;
    printf ("Enter num:");
    scanf ("%d", &n);
    for (i=1; i<=n; i+=2) {
        sum += i;
    }
    printf ("sum of odd numbers = %d", sum);
    return 0;
}
```

9) sum of first n even numbers.

```
#include <stdio.h>
int main () {
    int n, sum = 0;
    printf ("Enter n:");
    scanf ("%d", &n);
    for (int i=1; i<=n; i++) {
        sum += 2 * i;
    }
    printf ("sum = %d\n", sum);
    return 0;
}
```

10) Factorial of a number.

```
#include <stdio.h>
int main () {
    int n, f=1;
    printf ("Enter n:");
    scanf ("%d", &n);
    for (int i=1; i<=n; i++) {
        f *= i;
    }
    printf ("Factorial of %d = %d\n", n, f);
    return 0;
}
```

11) Your name 5 times

```
#include <stdio.h>
int main () {
    for (int i=1; i<=5; i++) {
        printf ("Riya Bhuvan\n");
    }
    return 0;
}
```

12) Your name n times

```
#include <stdio.h>
int main() {
    printf ("Enter n:");
    scanf ("%d", &n);
    for (int i=1; i<=n; i++) {
        printf ("Riya Bhuvan\n");
    }
    return 0;
}
```

13) sum of numbers divisible by 13 from 1 to 100.

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

```
int main () {
```

```
    int sum = 0;
```

```
    for (int i=1; i<=100; i++) {
```

```
        if (i % 13 == 0)
```

```
            sum += i;
```

```
}
```

```
    printf ("sum = %d\n", sum);
```

```
    return 0;
```

```
}
```

14) sum and mean of 10 values.

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

```
int main () {
```

```
    int a, sum = 0;
```

```
    float mean;
```

```
    for (int i=1; i<=10; i++) {
```

```
        printf ("Enter value %d:", i);
```

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

```
        sum += a;
```

```
}
```

```
mean = sum / 10.0;
```

```
printf ("Sum = %d Mean = %.2f\n", sum, mean);
```

```
return 0;
```

```
}
```

15) sum and mean of n values

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

```
int main () {
```

```
int a,n, sum=0;
```

```
float mean;
```

```
printf ("Enter n:");
```

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

```
for (int i=1, i<=n; i++)
```

```
return 0
```

```
}
```

16) largest and smallest among 100 numbers.

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

```
int main () {
```

```
int num, max, min;
```

```
printf ("Enter number 1:");
```

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

```
max = min = num;
```

```
for (int i=2, i<=100; i++)
```

```
printf ("Enter number %d: ", i);
```

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

```
if (num > max) max = num;
```

```
if (num < min) min = num;
```

```
}
```

```
printf ("largest = %d \n smallest = %d \n", max, min);
```

```
return 0;
```

```
}
```

17) Count positive, negative and zero number among 200 values.

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

```
int main () {
```

```
    int num, pos=0, neg=0, zero=0;
```

```
    for (int i = 1; i <= 200; i++) {
```

```
        printf ("Enter number %d: ", i);
```

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

```
        if (num > 0) pos++;
```

```
        else if (num < 0) neg++;
```

```
        else zero++;
```

```
}
```

```
    printf ("positive=%d Negative=%d zero=%d/n",
            pos, neg, zero);
```

```
    return 0;
```

```
}
```

18) Count number of boys and girls in a class of 50 students using switch case.

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

```
int main () {
```

```
    int num, pos=0, neg=0, zero=0;
```

```
    for (int i = 1; i <= 50; i++) {
```

```
        printf ("Enter number %d: ", i);
```

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

```
        if (num > 0) pos++;
```

```
        else zero++;
```

```
}
```

```
    return 0;
```

```
}
```

19) Print numbers 1 to 100 divisible by 5

```
#include <stdio.h>
int main () {
    for (int i=1; i<=100; i++)
        if (i%5 == 0)
            printf ("%d", i);
    return 0;
}
```

20) Sum of all numbers from 1 to 100 divisible by 3

```
#include <stdio.h>
int main () {
    int sum=0;
    for (int i=1; i<=100; i++)
        if (i%3 == 0)
            sum += i;
    printf ("sum = %d\n", sum);
    return 0;
}
```

21) separate digits of a given number.

```
#include <stdio.h>
int main () {
    int num;
    printf ("Enter a number : ");
    scanf ("%d", &num);
    printf ("Digits : ");
    while (num>0) {
```

```
printf ("%d", num % 10);
num /= 10;
}
scanf("%d", &num);
}
```

22) Count digit of a given number.

```
#include <stdio.h>
int main () {
    int num, count=0;
    printf ("Enter a number : ");
    scanf ("%d", &num);
    do {
        count++;
        num /= 10;
    } while (num != 0);
    printf ("Number of digits = %d\n", count);
    return 0;
}
```

23) Sum of digit of a given number.

```
#include <stdio.h>
int main () {
    int num, sum=0;
    printf ("Enter a number : ");
    scanf ("%d", &num);
    while (num > 0) {
        sum += num % 10;
        num /= 10;
    }
    printf ("sum of digit = %d\n", sum);
    return 0;
}
```

24) Reverse the digits of a number.

```
#include <stdio.h>
int main () {
    int num, rev=0;
    printf ("Enter a number:");
    scanf ("%d", &num);
    while (num != 0) {
        rev = rev * 10 + num % 10;
        num /= 10;
    }
    printf ("Reversed = %d\n", rev);
    return 0;
}
```

25) Check whether a number is palindrome.

```
#include <stdio.h>
int main () {
    int num, rev=0, temp;
    printf ("Enter the number to be checked:");
    scanf ("%d", &num);
    temp = num;
    while (num) {
        rev = rev * 10 + num % 10;
        num = num / 10;
    }
    if (temp == rev)
        printf ("Palindrome\n");
    else
        printf ("NOT a palindrome\n");
    return 0;
}
```

26) Check whether a number is an Armstrong number.

```
#include <stdio.h>
int main () {
    int num, sum=0, temp, digit;
    printf ("Enter the number to be checked : ");
    scanf ("%d", &num);
    temp = num;
    while (temp != 0) {
        digit = temp % 10;
        sum += digit * digit * digit;
        temp /= 10;
    }
    if (sum == num)
        printf ("Armstrong\n");
    else
        printf ("Not Armstrong\n");
    return 0;
}
```

27) All factors of a number.

```
#include <stdio.h>
int main () {
    int num;
    printf ("Enter a number : ");
    scanf ("%d", &num);
    printf ("Factors : ");
    for (int i=1; i<=num; i++)
        if (num % i == 0)
            printf ("%d ", i);
    return 0;
}
```

28) Check whether a number is a perfect number.

```
#include <stdio.h>
int main () {
    int num, sum = 0;
    printf ("Enter a number :");
    scanf ("%d", &num);
    for (int i=1; i<num; i++)
        if (num % i == 0)
            sum += i;
    if (sum == num)
        printf ("Perfect number\n");
    else
        printf ("Not perfect number\n");
    return 0;
}
```

29) Check whether a number is a prime number

```
#include <stdio.h>
int main () {
    int num, flag = 1;
    printf ("Enter a number :");
    scanf ("%d", &num);
    if (num < 2)
        flag = 0;
    for (int i=2; i <= num/2; i++)
        if (num % i == 0)
            flag = 0;
    if (flag)
        printf ("Prime\n");
}
```

```
else
    printf("Not prime\n");
return 0;
}
```

30) print all prime number between 1 and 500.

```
#include <stdio.h>
int main () {
    for (int num = 2; num <= 500; num++) {
        int flag = 1;
        for (int i = 2; i <= num/2; i++)
            if (num % i == 0)
                flag = 0;
        if (flag == 0)
            break;
    }
    if (flag)
        printf("%d", num);
}
return 0;
}
```

31) summation of prime numbers between 1 and 500.

```
#include <stdio.h>
int sum = 0;
for (int num = 2; num <= 500; num++) {
    int flag = 1;
    for (int i = 2; i <= num/2; i++)
        if (num % i == 0)
```

```
flag = 0;  
break;  
}  
if (flag)  
    sum += num;  
}  
printf ("sum=%d\n", sum);  
return 0;  
}
```

- 32) Count how many prime numbers are there between 1 and 500

```
#include <stdio.h>  
int main () {  
    int count = 0;  
    for (int num=2; num<=500; num++) {  
        int flag = 1;  
        for (int i=2; i<=num/2; i++)  
            if (num%i==0) {  
                flag = 0;  
                break;  
            }  
        if (flag)  
            count++;  
    }  
    printf ("Number of primes=%d\n", count);  
    return 0;  
}
```

33) Check whether a number is an automorphic number.

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

```
int main () {
```

```
int num, square, temp, rem;
```

```
int isAutomorphic = 1;
```

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

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

```
square = num * num;
```

```
temp = num;
```

```
while (temp > 0) {
```

```
rem = temp % 10;
```

```
if (rem != square % 10) {
```

```
isAutomorphic = 0;
```

```
break;
```

```
}
```

```
temp /= 10;
```

```
square /= 10;
```

```
}
```

```
if (isAutomorphic)
```

```
printf ("Automorphic number\n");
```

```
else
```

```
printf ("Not an automorphic number\n");
```

```
return 0;
```

```
}
```

34) Print fibonacci series upto n terms.

```
#include <stdio.h>
int main () {
    int n, i, a=0, b=1, c;
    printf ("Enter a number of terms:");
    scanf ("%d", &n);
    for (i=0; i<n; i++) {
        printf ("%d", a);
        c = a+b;
        a = b;
        b = c;
    }
    return 0;
}
```