

//Q1: Print first 10 natural numbers

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

```
int main() {  
    int i;  
    for(i=1;i<=10;i++)  
        printf("%d ", i);  
    printf("\n");  
    return 0;  
}
```

//Q2: Print first 10 odd numbers

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

```
int main() {  
    int i;  
    for(i=1;i<=20;i+=2)  
        printf("%d ", i);  
    printf("\n");  
    return 0;  
}
```

//Q3: Print first 10 even numbers

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

```
int main() {  
    int i;  
    for(i=2;i<=20;i+=2)  
        printf("%d ", i);  
    printf("\n");  
    return 0;  
}
```

//Q4: Print first n natural numbers

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

```
int main() {  
    int i, n;  
    printf("Enter n: ");  
    scanf("%d",&n);  
    for(i=1;i<=n;i++)  
        printf("%d ", i);  
}
```

```
printf("\n");  
return 0;  
}
```

//Q5: Print first n odd numbers

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

//Q6: Print first n even numbers

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

//Q7: Print sum of n natural numbers

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

```
}
```

//Q8: Sum of first n odd numbers

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

```
int main() {
```

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

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

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

```
    for(i=1;i<=2*n;i+=2)
```

```
        sum += i;
```

```
    printf("Sum of first %d odd numbers = %d\n", n, sum);
```

```
    return 0;
```

```
}
```

//Q9: Sum of first n even numbers

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

```
int main() {
```

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

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

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

```
    for(i=2;i<=2*n;i+=2)
```

```
        sum += i;
```

```
    printf("Sum of first %d even numbers = %d\n", n, sum);
```

```
    return 0;
```

```
}
```

//Q10: Factorial of a number

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

```
int main() {
```

```
    int i, n;
```

```
    unsigned long long fact=1;
```

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

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

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

```
        fact *= i;
```

```
    printf("%d! = %llu\n", n, fact);
```

```
    return 0;
```

```
}
```

//Q11: Print name 5 times

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

```
int main() {
```

```
    int i;
```

```
    for(i=1;i<=5;i++)
```

```
        printf("YourName\n");
```

```
    return 0;
```

```
}
```

//Q12: Print name n times

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

```
int main() {
```

```
    int i, n;
```

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

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

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

```
        printf("YourName\n");
```

```
    return 0;
```

```
}
```

//Q13: Sum of numbers divisible by 13 from 1 to 100

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

```
int main() {
```

```
    int i, sum=0;
```

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

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

```
            sum += i;
```

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

```
    return 0;
```

```
}
```

//Q14: Sum and mean of 10 values

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

```
int main() {
```

```
    int i, n=10, x, sum=0;
```

```
    float mean;
```

```

for(i=1;i<=10;i++){
    scanf("%d",&x);
    sum += x;
}
mean = sum/10.0;
printf("Sum = %d, Mean = %.2f\n", sum, mean);
return 0;
}

```

//Q15: Sum and mean of n values

```

#include <stdio.h>
int main() {
    int i, n, x, sum=0;
    float mean;
    printf("Enter n: ");
    scanf("%d",&n);
    for(i=1;i<=n;i++){
        scanf("%d",&x);
        sum += x;
    }
    mean = sum/(float)n;
    printf("Sum = %d, Mean = %.2f\n", sum, mean);
    return 0;
}

```

//Q16: Largest and smallest out of 100 numbers

```

#include <stdio.h>
int main() {
    int i, num, max, min;
    printf("Enter 100 numbers:\n");
    for(i=1;i<=100;i++){
        scanf("%d",&num);
        if(i==1) max=min=num;
        if(num>max) max=num;
        if(num<min) min=num;
    }
    printf("Largest = %d, Smallest = %d\n", max, min);
    return 0;
}

```

//Q17: Count +ve, -ve and zero in 200 values

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

```
int main() {
```

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

```
    printf("Enter 200 numbers:\n");
```

```
    for(i=1;i<=200;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;
```

```
}
```

//Q18: Count boys and girls in 50 students

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

```
int main() {
```

```
    int i, sex, boys=0, girls=0;
```

```
    printf("Enter 50 sex codes (1-boy,2-girl):\n");
```

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

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

```
        if(sex==1) boys++;
```

```
        else if(sex==2) girls++;
```

```
    }
```

```
    printf("Boys=%d, Girls=%d\n", boys, girls);
```

```
    return 0;
```

```
}
```

//Q19: Integers from 1 to 100 divisible by 5

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

```
int main() {
```

```
    int i;
```

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

```
        if(i%5==0)
```

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

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

```
    return 0;
```

```
}
```

//Q20: Sum of integers 1-100 divisible by 3

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

```
int main() {
```

```
    int i, sum=0;
```

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

```
        if(i%3==0) sum+=i;
```

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

```
    return 0;
```

```
}
```

//Q21: Separate digits of a number

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

```
int main() {
```

```
    int num, digit;
```

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

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

```
    printf("Digits: ");
```

```
    while(num>0){
```

```
        digit=num%10;
```

```
        printf("%d ", digit);
```

```
        num/=10;
```

```
    }
```

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

```
    return 0;
```

```
}
```

//Q22: Count digits in a number

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

```
int main() {
```

```
    int num, count=0;
```

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

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

```
    while(num>0){
```

```
        num/=10;
```

```
        count++;
```

```
    }
```

```
printf("Digits=%d\n", count);  
return 0;  
}
```

//Q23: Sum of digits

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

//Q24: Reverse digits

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

//Q25: Check palindrome

```
#include <stdio.h>  
int main() {  
    int num, rev=0, temp, digit;
```



```

printf("Enter number: ");
scanf("%d",&num);
temp=num;
while(temp>0){
    digit=temp%10;
    rev=rev*10+digit;
    temp/=10;
}
if(rev==num) printf("Palindrome\n");
else printf("Not Palindrome\n");
return 0;
}

```

```

//Q26: Check Armstrong
#include <stdio.h>
int main() {
    int num, temp, digit, sum=0;
    printf("Enter number: ");
    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;
}

```

```

//Q27: Factors of a number
#include <stdio.h>
int main() {
    int num, i;
    printf("Enter number: ");
    scanf("%d",&num);
    printf("Factors: ");
    for(i=1;i<=num;i++)
        if(num%i==0) printf("%d ", i);
    printf("\n");
}

```

```
    return 0;
}
```

//Q28: Check perfect number

```
#include <stdio.h>
int main() {
    int num, i, sum=0;
    printf("Enter number: ");
    scanf("%d",&num);
    for(i=1;i<=num/2;i++)
        if(num%i==0) sum+=i;
    if(sum==num) printf("Perfect number\n");
    else printf("Not perfect\n");
    return 0;
}
```

//Q29: Check prime number

```
#include <stdio.h>
int main() {
    int num, i, flag=0;
    printf("Enter number: ");
    scanf("%d",&num);
    for(i=2;i<num;i++)
        if(num%i==0) flag=1;
    if(flag==0) printf("Prime\n");
    else printf("Not Prime\n");
    return 0;
}
```

//Q30: All prime numbers between 1 and 500

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

```
}  
printf("\n");  
return 0;  
}
```

//Q31: Sum of prime numbers between 1 and 500

```
#include <stdio.h>  
int main() {  
    int i, j, flag, sum=0;  
    for(i=2;i<=500;i++){  
        flag=0;  
        for(j=2;j<i;j++){  
            if(i%j==0) flag=1;  
        }  
        if(flag==0) sum+=i;  
    }  
    printf("Sum=%d\n", sum);  
    return 0;  
}
```

//Q32: Count prime numbers between 1 and 500

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

//Q33: Check automorphic number

```
#include <stdio.h>  
int main() {  
    int num, sq, temp1, temp2, flag=0;  
    printf("Enter number: ");
```

```

scanf("%d",&num);
sq=num*num;
temp1=num;
temp2=sq;
while(temp1>0){
    if(temp1%10 != temp2%10) flag=1;
    temp1/=10;
    temp2/=10;
}
if(flag==0) printf("Automorphic\n");
else printf("Not Automorphic\n");
return 0;
}

```

//Q34: Fibonacci series up to n numbers

```

#include <stdio.h>
int main() {
    int n, i, a=1, b=1, c;
    printf("Enter n: ");
    scanf("%d",&n);
    if(n>=1) printf("%d ", a);
    if(n>=2) printf("%d ", b);
    for(i=3;i<=n;i++){
        c=a+b;
        printf("%d ", c);
        a=b;
        b=c;
    }
    printf("\n");
    return 0;
}

```

//Q35(A): Series 1 1, 1 2, 1 3, 2 1, 2 2, 2 3

```

#include <stdio.h>
int main() {
    int i,j;
    for(i=1;i<=2;i++){
        for(j=1;j<=3;j++)
            printf("%d %d\t", i,j);
        printf("\n");
    }
}

```

```
}  
return 0;  
}
```

//Q36(A): Series 1 5, 2 4, 3 3, 4 2, 5 1

```
#include <stdio.h>  
int main() {  
    int i;  
    for(i=1;i<=5;i++)  
        printf("%d %d\n", i,6-i);  
    return 0;  
}
```