1. **Write a program to find the Nth term of the Fibonnaci series.**

Ans.

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

2. **Write a program to print first N terms of Fibonacci series**

Ans.

```
#include <stdio.h>
int main()
{
  int n, previous = 0, current = 1, i, next = 0;
  printf("Enter a number:");
  scanf("%d", &n);
  printf("%d ", current);
  for (i = 0; i < n - 1; i++)
  {
    next = previous + current;
    printf("%d ", next);
    previous = current;
```

```
        current = next;
    }
    return 0;
}
```

3. Write a program to check whether a given number is there in the Fibonacci series or not.

Ans.

```
#include <stdio.h>
int main()
{
    int n, previous = 0, current = 1, i, next = 0;
    printf("Enter a number:");
    scanf("%d", &n);
    for (i = 0; i < n - 1; i++)
    {
        next = previous + current;
        previous = current;
        current = next;
        if (next == n)
        {
            printf("Number found");
            break;
        }
        if (next > n)
        {
            printf("Number not found");
            break;
        }
    }
    return 0;
}
```

4. Write a program to calculate HCF of two numbers

Ans.

```
#include <stdio.h>
int main()
{
   int a = 128, b = 240, i, hcf;
   for (i = 1; i <= b; i++)
   {
      if (a % i == 0 && b % i == 0)
      {
         hcf = i;
      }
   }
   printf("HCF of %d and %d is %d", a, b, hcf);
   return 0;
}
```

5. Write a program to check whether two given numbers are co-prime numbers or not

Ans.

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

```
    }
    if(temp == 1){
        printf("%d and %d are co prime numbers",a,b);
    }
    else{
        printf("%d and %d are not co prime numbers",a,b);
    }
    return 0;
}
```

6. **Write a program to print all Prime numbers under 100**

Ans.

```
#include <stdio.h>
int main()
{
    int i, j;
    for (i = 2; i <= 100; i++)
    {
        if (i == 2 || i == 3)
        {
            printf("%d ", i);
        }
        else
        {
            for (j = 2; j <= i / 2; j++)
            {
                if (i % j == 0)
                {
                    break;
                }
            }
            if (j == i / 2 + 1)
            {
                printf("%d ", i);
            }
        }
    }
    return 0;
}
```

7. Write a program to print all Prime numbers between two given numbers

Ans.

```
#include <stdio.h>
int main()
{
    int a, b, i, j;
    printf("Enter two numbers:");
    scanf("%d%d", &a, &b);
    for (i = a; i <= b; i++)
    {
        for (j = 2; j <= i / 2; j++)
        {
            if (i % j == 0)
            {
                break;
            }
        }
        if (j == i / 2 + 1)
        {
            printf("%d ", i);
        }
    }
    return 0;
}
```

8. **Write a program to find next Prime number of a given number**

Ans.

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

9. **Write a program to check whether a given number is an Armstrong number or not**

Ans.

```
#include <stdio.h>
int main()
{
   int num, sum = 0, temp, temp2;
   printf("Enter a number:");
   scanf("%d", &num);
   temp = num;
   while (temp)
   {
        temp2 = temp % 10;
        sum = temp2 * temp2 * temp2 + sum;
        temp = temp / 10;
    }
    if (sum == num)
        printf("%d is an Armstrong number", num);
    else
        printf("%d is not an Armstrong number", num);
    return 0;
}
```

10. Write a program to print all Armstrong numbers under 1000

Ans.

```
#include <stdio.h>
int main()
{
    int i, temp, temp2, sum;
    printf("Armstrong numbers under one thousand are:\n");
    for (i = 0, sum = 0; i <= 1000; i++)
    {
        temp = i;
        while (temp)
        {
            temp2 = temp % 10;
            sum = temp2 * temp2 * temp2 + sum;
            temp = temp / 10;
        }
        if (sum == i)
        {
            printf("%d ", i);
        }
        sum = 0;
    }
    return 0;
}
```