

**Day 26 coding Statement : Write a program to calculate Maximum number of handshakes**

### Description

Get the number of people in the room as input from the user. Then calculate the maximum number of handshakes possible among that people.

For e.g. If there are N people in the room then the first person has to shake hand with N-1 people and second person has to shake hand with N-1-1 people i.e., N-2 handshakes are possible. Thus, it goes on.

So total hand shakes =  $N-1 + N-2 + N-3 + \dots + 1 + 0$

### Input

10

### Output

45

```
import java.util.Scanner;

public class RatanPrajapati_day26 {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int num = sc.nextInt();
        int ans = num*(num-1)/2;
        System.out.println(ans);
    }
}
```