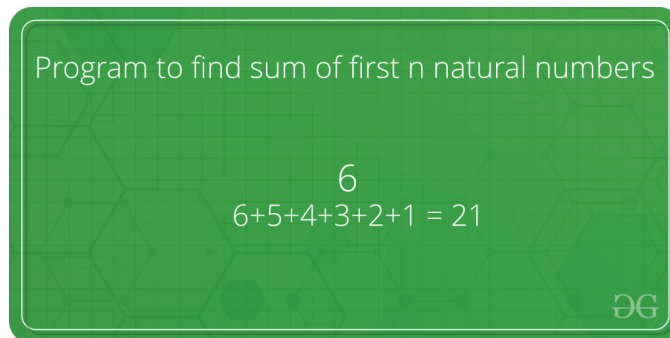


# Sum of natural numbers using recursion

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Given a number  $n$ , find sum of first  $n$  natural numbers. To calculate the sum, we will use a recursive function `recur_sum()`.

## Examples :

Input : 3  
Output : 6  
Explanation :  $1 + 2 + 3 = 6$

Input : 5  
Output : 15  
Explanation :  $1 + 2 + 3 + 4 + 5 = 15$

Below is code to find the sum of natural numbers up to  $n$  using recursion :

```
// C++ program to find the
// sum of natural numbers up
// to n using recursion
#include <iostream>
using namespace std;

// Returns sum of first
// n natural numbers
int recurSum(int n)
{
```

```
    if (n <= 1)
        return n;
    return n + recurSum(n - 1);
}

// Driver code
int main()
{
    int n = 5;
    cout << recurSum(n);
    return 0;
}
```

**Output :**

15