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Sum of natural numbers using recursion

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 :

Python

```

# Python code to find sum
# of natural numbers upto
# n using recursion

# Returns sum of first
# n natural numbers
def recurSum(n):
    if n <= 1:
        return n
    return n + recurSum(n - 1)

# Driver code
n = 5
print(recurSum(n))
    
```

Output :

15

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Time complexity : $O(n)$

Auxiliary space : $O(n)$

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