

```
1  /**
2   * Recursively find the sum from 1 to n, given
3   * by the user
4   */
5
6  #include <stdio.h>
7  #include <cs50.h>
8
9  // Function prototype
10 int sigma(int n);
11
12 int main(void)
13 {
14     // Get a positive integer from the user
15     int n;
16     do
17     {
18         n = get_int("Integer: ");
19     }
20     while (n < 1);
21
22     printf("Sum of 1 through %i is %i.\n", n, sigma(n));
23 }
24
25 /**
26  * Recursive implemenation of the sum from 1 to n
27  */
28 int sigma(int n)
29 {
30     // Base case
31     if (n == 1)
32     {
33         return 1;
34     }
35
36     // Recursive case
37     return n + sigma(n - 1);
38 }
```