

```
1 // Q104: Write a Program to take a positive integer n as input, and find the pivot integer x such that the sum of all elements between 1 and x
2
3 /*
4 Sample Test Cases:
5 Input 1:
6 n = 8
7 Output 1:
8 6
9
10 Input 2:
11 n = 1
12 Output 2:
13 -1
14
15 Input 3:
16 n = 4
17 Output 3:
18 -1
19
20 */
21
22 #include <stdio.h>
23
24 int main() {
25     int n, x, sumLeft, sumRight, i;
26     printf("Enter n: ");
27     scanf("%d", &n);
28     for (x = 1; x <= n; x++) {
29         sumLeft = x * (x + 1) / 2;
30         sumRight = n * (n + 1) / 2 - (x - 1) * x / 2;
31         if (sumLeft == sumRight) {
32             printf("%d\n", x);
33             return 0;
34         }
35     }
36     printf("-1\n");
37     return 0;
38 }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\drago\OneDrive\Desktop\C H.W> gcc .\abc.c
PS C:\Users\drago\OneDrive\Desktop\C H.W> ./a.exe
Enter n: 8
6
PS C:\Users\drago\OneDrive\Desktop\C H.W> gcc .\abc.c
PS C:\Users\drago\OneDrive\Desktop\C H.W> ./a.exe
Enter n: 1
1
PS C:\Users\drago\OneDrive\Desktop\C H.W> gcc .\abc.c
PS C:\Users\drago\OneDrive\Desktop\C H.W> ./a.exe
Enter n: 4
-1
PS C:\Users\drago\OneDrive\Desktop\C H.W>
```