

```

#include <iostream>

#include <vector>

#include <numeric>

using namespace std;

//=====

// Objective: To find the sum of a given number of integers.

// Inputs:  count (int) - The number of integers to read.

// Return value: The total sum of the numbers.

// Side Effects: Interacts with standard input/output streams.

//=====

int sum(int count) {

    // Approach: Prompts the user for a specified number of integers,

    //          and then iteratively reads and sums them.

    int total = 0;

    cout << "Please enter " << count << " integers.\n";

    for (int i = 0; i < count; ++i) {

        int number;

        cout << "Enter number " << (i + 1) << ": ";

        cin >> number;

        total += number;

    }

    return total;

}

//=====

```

```
// Objective: To serve as the main driver for the program.

// Approach: Prompts the user for the number of items to sum,
//          calls the 'sum' function, and displays the final result.

//=====

int main() {
    int n_items;

    cout << "Enter the number of integers you want to sum: ";
    cin >> n_items;

    // Call the sum function to get the total
    int result = sum(n_items);

    // Display the final result
    cout << "\nThe sum of the " << n_items << " numbers is: " << result << endl;

    return 0;
}
```