

```
1 // Average three numbers using an array and a loop to fill the array
2 #include <cs50.h>
3 #include <stdio.h>
4
5 // Function prototype
6 float average(int length, int array[]);
7
8 int main(void)
9 {
10     // Let the user decide how many scores to enter
11     int n = get_int("How many scores do you want to enter? ");
12
13     // Declare the array
14     int scores[n];
15
16     // Input n scores
17     for (int i = 0; i < n; i++)
18     {
19         scores[i] = get_int("Score: ");
20     }
21
22     // Print the average
23     printf("Average: %0.3f\n", average(n, scores));
24 }
25
26 // Function to determine the average
27 float average(int length, int array[])
28 {
29     // Calculate the sum
30     int sum = 0;
31     for (int i = 0; i < length; i++)
32     {
33         sum += array[i];
34     }
35
36     // Return the average
37     // Note* we needed to typecast the length so that we don't have integer division
38     // a.k.a we forced the length to be a float
39     return sum / (float) length;
40 }
```