ICE recursion multiplication with hidden function.cpp

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1 //============================================================================
2 // Name        : ICE recursion multipication with static variable.cpp
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4 // Version     :
5 // Copyright   : Your copyright notice
6 // Description : Hello World in C++, Ansi-style
7 //============================================================================
8
9 #include <iostream>
10 using namespace std;
11 int rmult(int, int);
12 int internalRmult(int, int, int);
13 int main() {
14     int answer;
15     answer = rmult(5,11);
16     cout << answer;
17     return 0;
18 }
19 int rmult(int x, int y)
20 {
21     return internalRmult (x, y, 0);
22 }
23 int internalRmult(int x, int y, int numAdditions)
24 {
25     if (numAdditions < y)
26     {
27         cout << "calling rmult time number " << numAdditions << endl;
28         numAdditions++;
29         return x + internalRmult(x, y, numAdditions);
30     }
31     else
32     {
33         cout << "base case" << endl;
34         return 0;
35     }
36 }
37
```