1. The function is called 2 times.
2. I expect to only see the last name.
3. I’m assuming it possibly reverses the string.
4. All saved outputs from Lab09a:

laithassaf@Laiths-MacBook-Air-2 Lab09 % g++ -o Lab09a Lab09a.cpp

laithassaf@Laiths-MacBook-Air-2 Lab09 % ./Lab09a

Enter your last name: Assaf

A = 65

s = 115

s = 115

a = 97

f = 102

0 recursions

laithassaf@Laiths-MacBook-Air-2 Lab09 % g++ -o Lab09a Lab09a.cpp

laithassaf@Laiths-MacBook-Air-2 Lab09 % ./Lab09a

Enter your last name: Assaf

A = 65

s = 115

s = 115

a = 97

f = 102

6 recursions

laithassaf@Laiths-MacBook-Air-2 Lab09 % g++ -o Lab09a Lab09a.cpp

laithassaf@Laiths-MacBook-Air-2 Lab09 % ./Lab09a

Enter your last name: Assaf

Assaf

6 recursions

laithassaf@Laiths-MacBook-Air-2 Lab09 % g++ -o Lab09a Lab09a.cpp

laithassaf@Laiths-MacBook-Air-2 Lab09 % ./Lab09a

Enter your last name: Assaf

fassA

6 recursions

laithassaf@Laiths-MacBook-Air-2 Lab09 %

**Lab09b code:**/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* Lab 09b � Recursive Coin Changer

\* Written by Laith Assaf

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#include <iostream>

using namespace std;

int coins(int);

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* main()

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/

int main()

{ int cents,n;

// Get user input

cout << "Enter an amount in cents: ";

cin >> cents;

// Call recursive function

n = coins(cents);

cout << endl;

// Output results

cout << n << " coins" << endl;

// Success

return 0;

}

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* coins()

\* Recursive function to determine the

\* minimum number of each coin needed to

\* make change for a given amount.

\* It adds 1 + coin(n-coin) to the total

\* because it is counting the coin it is

\* using to make change and the recursive.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/

int coins(int n)

{

// Base case - when no amount left to process

if (n == 0)

return 0;

// Handle quarters (25¢)

if (n >= 25)

{

cout << "25 ";

return 1 + coins(n - 25);

}

// Handle dimes (10¢)

if (n >= 10)

{

cout << "10 ";

return 1 + coins(n - 10);

}

// Handle nickels (5¢)

if (n >= 5)

{

cout << "5 ";

return 1 + coins(n - 5);

}

// Handle pennies (1¢)

cout << "1 ";

return 1 + coins(n - 1);

}

**Output:**  
laithassaf@Laiths-MacBook-Air-2 Lab09 % ./Lab09b

Enter an amount in cents: 168

25 25 25 25 25 25 10 5 1 1 1

11 coins

laithassaf@Laiths-MacBook-Air-2 Lab09 % ./Lab09b

Enter an amount in cents: 72

25 25 10 10 1 1

6 coins

laithassaf@Laiths-MacBook-Air-2 Lab09 % ./Lab09b

Enter an amount in cents: 37

25 10 1 1

4 coins

laithassaf@Laiths-MacBook-Air-2 Lab09 %