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#include <iostream>
#include <iomanip>
using namespace std;

// Michael Steele

void normalizeMoney(float& dollars, int cents = 150);
// This function takes cents as an integer and converts it to dollars
// and cents. The default value for cents is 150 which is converted
// to 1.50 and stored in dollars

int main()
{
    int cents;
    float dollars;

    cout << setprecision(2) << fixed << showpoint;

    cents = 95;
    cout << "\n We will now add 95 cents to our dollar total\n";

    //      Fill in the code to call normalizeMoney to add 95 cents
    normalizeMoney(dollars, cents);

    cout << "Converting cents to dollars resulted in " << dollars << " dollars\n";

    cout << "\n We will now add 193 cents to our dollar total\n";

    // Fill in the code to call normalizeMoney to add 193 cents
    normalizeMoney(dollars, 193);

    cout << "Converting cents to dollars resulted in " << dollars << " dollars\n";

    cout << "\n We will now add the default value to our dollar total\n";

    // Fill in the code to call normalizeMoney to add the default value of cents
    normalizeMoney(dollars);

    cout << "Converting cents to dollars resulted in " << dollars << " dollars\n";

    return 0;
}

```

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//*****
//      normalizeMoney
//
//      task:   This function is given a value in cents. It will convert cents
//              to dollars and cents which is stored in a local variable called
//              total which is sent back to the calling function through the
//              parameter dollars. It will keep a running total of all the money
//              processed in a local static variable called sum.
//
//      data in: cents which is an integer
//      data out: dollars (which alters the corresponding actual parameter)
//
//*****

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void normalizeMoney(float& dollars, int cents)
{
    float total = 0;

    // Fill in the definition of sum as a static local variable
    static float sum = 0.0;

    // Fill in the code to convert cents to dollars
    dollars = cents/100.00;
    total = total + dollars;
    sum += dollars;

    total = total + dollars;
    sum = sum + dollars;

    cout << "We have added another $" << dollars << " to our total" << endl;
    cout << "Our total so far is   $" << sum << endl;

    cout << "The value of our local variable total is $" << total << endl;
}

```