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// This program is used by General Crates, Inc. to calculate
// the volume, cost, customer charge, and profit of a crate
// of any size. It calculates this data from user input, which
// consists of the dimensions of the crate.
#include <iostream>
#include <iomanip>
using namespace std;

int main()
{
   // Constants for cost and amount charged
   const double COST_PER_CUBIC_FOOT = 0.23;
   const double CHARGE_PER_CUBIC_FOOT = 0.5;

   // Variables
   double length,   // The crate's length
          width,    // The crate's width
          height,   // The crate's height
          volume,   // The volume of the crate
          cost,     // The cost to build the crate
          charge,   // The customer charge for the crate
          profit;   // The profit made on the crate

   // Set the desired output formatting for numbers.
   cout << setprecision(2) << fixed << showpoint;

   // Prompt the user for the crate's length, width, and height.
   cout << "Enter the dimensions of the crate (in feet):\n";
   cout << "Length: ";
   cin >> length;
   cout << "Width: ";
   cin >> width;
   cout << "Height: ";
   cin >> height;

   // Calculate the crate's volume, the cost to produce it,
   // the charge to the customer, and the profit.
   volume = length * width * height;
   cost = volume * COST_PER_CUBIC_FOOT;
   charge = volume * CHARGE_PER_CUBIC_FOOT;
   profit = charge - cost;

   // Display the calculated data.
   cout << "The volume of the crate is ";
   cout << volume << " cubic feet.\n";
   cout << "Cost to build: $" << cost << endl;
   cout << "Charge to customer: $" << charge << endl;
   cout << "Profit: $" << profit << endl;
   return 0;
}
```