

Answer on Question #81799 – Programming & Computer Science | C++

A bagel shop charges 75 cents per bagel for orders of less than a half-dozen bagels and 50 cents per bagel for orders of a half-dozen or more. Write a program that requests the number of bagels ordered and displays the price for each bagel and the total cost. Format the output results with two decimal places.

Answer:

```
#include <iostream>
#include <iomanip>

using namespace std;

// constants
const int HALF_DOZEN = 6;
const double PRICE = 0.75;
const double LOW_PRICE = 0.50;

int main()
{
    int number_of_bagels; // the number of bagels ordered
    double total_price;
    double price_per_bagel = PRICE;

    // read the input
    cout << "Enter the number of bagels ordered: ";
    cin >> number_of_bagels;

    // define the price per bagle
    if (number_of_bagels >= HALF_DOZEN) {
        price_per_bagel = LOW_PRICE;
    }

    // calculate the total price
    total_price = price_per_bagel * number_of_bagels;

    // output results
    cout << fixed << setprecision(2); // set output format for doubles with 2 decimal places
    cout << "Price for each bagel: " << price_per_bagel << endl;
    cout << "Total price: " << total_price << endl;

    return 0;
}
```

See the next page for a screenshot

```
D:\google\GF>g++ bagel_shop.cpp -o bagel_shop.exe

D:\google\GF>bagel_shop.exe
Enter the number of bagels ordered: 2
Price for each bagel: 0.75
Total price: 1.50

D:\google\GF>bagel_shop.exe
Enter the number of bagels ordered: 5
Price for each bagel: 0.75
Total price: 3.75

D:\google\GF>bagel_shop.exe
Enter the number of bagels ordered: 6
Price for each bagel: 0.50
Total price: 3.00

D:\google\GF>bagel_shop.exe
Enter the number of bagels ordered: 10
Price for each bagel: 0.50
Total price: 5.00
```