

TIP CALCULATOR

Design a `Tips` class that calculates the gratuity on a restaurant meal. Its only class member variable, `taxRate`, should be set by a one-parameter constructor to whatever rate is passed to it when a `Tips` object is created. If no argument is passed, a default tax rate of .065 should be used. The class should have just one public function, `computeTip`. This function needs to accept two arguments, the total bill amount and the tip rate. It should use this information to compute what the cost of the meal was before the tax was added. It should then apply the tip rate to just the meal cost portion of the bill to compute and return the tip amount. Demonstrate the class by creating a program that creates a single `Tips` object, then loops multiple times to allow the program user to retrieve the correct tip amount using various bill totals and desired tip rates.

You may use the following information for your solution:

```
class Tips
{
    private:
        double taxRate;

    public:
        Tips(double rate = .065)    // Constructor that accepts a tax rate
        {                          // or uses a default value of 6.5%
            if (rate >= 0)
                taxRate = rate;
            else
                taxRate = .065;
        }
        double computeTip(double, double);
};
```

Statements to consider:

- Validation for tax rate - tip % cannot be less than 0
- Validation for total bill amount
- Validation for tip rate

/* SAMPLE RUN RESULTS

This program will compute a restaurant tip based on a total bill amount and % the patron wishes to tip the server.

Tax % for this location: 6.25

***** Tip Helper *****

Enter total bill amount: 42.19

Enter desired tip % 18

The tip should be \$ 7.15

Compute another tip (y/n)? n
*/