

Task 1:

When you go to a restaurant, it's polite to leave the waiter (/waitress) a tip. You've also got to pay sales tax on your meal, but not on the tip. For this task, we'll write a function that helps us calculate the total bill we'll pay. Your function should use MD's sales tax rate (6%) by default, but the user should be able to pass a different value if they want. Additionally, the function should default to a 15% tip, but again, you should be able to pass a different one if you want.

Task 2:

A few minutes ago, we stubbed out the `stddev` (standard deviation) and `mean` (arithmetic average) functions, but didn't implement them. Implement both of these functions, using the `mean` function as a helper function that is called by `stddev`. If you want a reminder on how to calculate standard deviation, you can see it [here](#).

You can test your `stddev` function with something like the following:

```
nums = [10, 7, 14, 3, 6, 21]
```

```
stdev_nums = stddev(nums)
```

The correct answer for the data above is 5.92.....

Task 3:

Write a function `primes_up_to_n` that calculates and prints all prime numbers up to a target value specified. For this, you'll probably want to use a **helper function** that can determine if a single number is prime or not, which you can outsource part of the work to.

Careful – think about which type of loop (for vs while) is best suited for solving this problem. If I asked you to calculate the first `n` prime numbers, would your answer change?