**Nucleotide Count**

In Practice Mode

Introduction

Given a single stranded DNA string, compute how many times each nucleotide occurs in the string.

The genetic language of every living thing on the planet is DNA. DNA is a large molecule that is built from an extremely long sequence of individual elements called nucleotides. 4 types exist in DNA and these differ only slightly and can be represented as the following symbols: 'A' for adenine, 'C' for cytosine, 'G' for guanine, and 'T' thymine.

Here is an analogy:

* twigs are to birds nests as
* nucleotides are to DNA as
* legos are to lego houses as
* words are to sentences as...

Getting Started

Make sure you have read the "Guides" section of the [C track](https://exercism.io/my/tracks/c) on the Exercism site. This covers the basic information on setting up the development environment expected by the exercises.

Passing the Tests

Get the first test compiling, linking and passing by following the [three rules of test-driven development](http://butunclebob.com/ArticleS.UncleBob.TheThreeRulesOfTdd).

The included makefile can be used to create and run the tests using the test task.

make test

Create just the functions you need to satisfy any compiler errors and get the test to fail. Then write just enough code to get the test to pass. Once you've done that, move onto the next test.

As you progress through the tests, take the time to refactor your implementation for readability and expressiveness and then go on to the next test.

Try to use standard C99 facilities in preference to writing your own low-level algorithms or facilities by hand.