**Triangle**

Introduction

Determine if a triangle is equilateral, isosceles, or scalene.

An *equilateral* triangle has all three sides the same length.

An *isosceles* triangle has at least two sides the same length. (It is sometimes specified as having exactly two sides the same length, but for the purposes of this exercise we'll say at least two.)

A *scalene* triangle has all sides of different lengths.

Note

For a shape to be a triangle at all, all sides have to be of length > 0, and the sum of the lengths of any two sides must be greater than or equal to the length of the third side. See [Triangle Inequality](https://en.wikipedia.org/wiki/Triangle_inequality).

Dig Deeper

The case where the sum of the lengths of two sides *equals* that of the third is known as a *degenerate* triangle - it has zero area and looks like a single line. Feel free to add your own code/tests to check for degenerate triangles.

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.