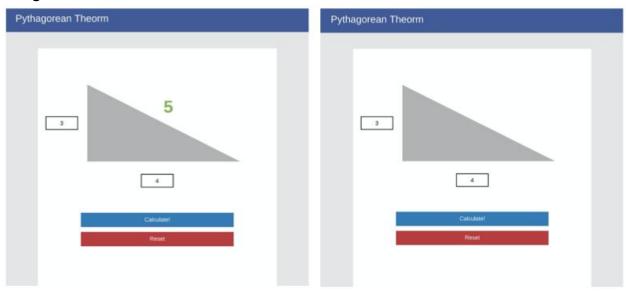# WEB304 Assignment 1

Due: November 19, 2020

Summary:

You have been contracted to build a simple web application that will allow users to find the hypotenuse of a triangle when the values of the other two sides are given. In order to do this, you will have to convert the pythagorean theorem into a usable function for this purpose.

$$a^2 + b^2 = c^2.$$

The application will need to have a form that has 2 input fields that will allow the user to enter in the 2 sides of the triangle. You will have to include a "calculate" button that will process the 2 imputed numbers through the pythagorean theorem and output the hypotenuse.

Design:

Independent Research requirement:

- You will have to look up how to use the ngModel directive and set it up to capture form data. Look up template-driven forms:
  https://angular.io/guide/forms-overview#setup-in-template-driven-forms

Requirements:

- Include a header component with CSS styling
- There must be a results component that calculates and holds the calculated result
- There must be a demonstration of passing the input values to the results component
- There must be a demonstration of using event handlers (use it on the inputs)
- The calculated value should not show up until the user clicks calculate
- The reset button should clear all the fields and also hide the calculated value
- There must be some custom CSS applied
- Bootstrap is not required, but is a nice addition
- Follow the design mockup provided
- There is a long edge and a short edge on the triangle. Add in conditional logic to prevent users from entering the smaller value on the long edge or a larger value on the short edge.