7. MPG Calculator

Student learning outcomes

- Students will create a form to perform a mathematical calculation on user-supplied data.
- Students will explore how to let users enter data in a way that they easily understand.
- Students will learn how to make a more extensive form look nice.
- Students will learn how to create an interactive form that does not have a submit button.

Real world applications:

- Travel apps and financial apps are two popular app categories.
- Students will create an app "to spec" based on a mockup drawing, to simulate client interaction.
- Students will understand what MPG is and how to calculate it.

Assignment requirements:

- Students will work independently to reproduce a calculator based on a mockup and make it work.
    - Students will use knowledge of labels and other features from the previous form-based projects, especially the BMI calculator.
    - Students will be expected to create a nice UI.
    - Students will create a UI based on a client mockup and are expected to conform to it as closely as possible.
- Because the form does not have a submit button, the calculations will be performed "live" every time the user changes the contents of any form field. This will use the following event handlers:
    - onchange (activates when input field focus is changed)
    - oninput (activates whenever input field content changes)
- Will use toFixed() to reduce the number of decimal places displayed.