**Challenge**

Which units you choose are down to you, but you could choose one of these:

* Temperature conversion: users choose Celsius, Fahrenheit, or Kelvin.
* **Length conversion: users choose meters, kilometers, feet, yards, or miles.**
* Time conversion: users choose seconds, minutes, hours, or days.
* Volume conversion: users choose milliliters, liters, cups, pints, or gallons.

If you were going for length conversion you might have:

* A segmented control for meters, kilometers, feet, yard, or miles, for the input unit.
* A second segmented control for meters, kilometers, feet, yard, or miles, for the output unit.
* A text field where users enter a number.
* A text view showing the result of the conversion.

So, if you chose meters for source unit and feet for output unit, then entered 10, you’d see 32.81 as the output.

Tip:

1. Keep it simple
2. all our unit conversions are simple mathematics, but you shouldn’t try to write conversions to go from every source unit to very other unit. A better idea is to convert the user’s input to a single base unit, then convert from there to the target unit. Convert the user’s input into milliliters (the lowest common denominator), then convert from there to whatever output unit they want.
3. as we have three user values here – their input number, their input unit, and their output unit – you need to have three **@State** properties to store them all. You’ll need a **TextField**, two pickers, and a text view to show your output, and that’s about it. You can break your form up into sections if you want, but it’s not required.
4. the easiest way to store your conversion units is to have a simple string array, which you can loop over using something like **ForEach(units, id: \.self)**
5. if you’d like to be a bit fancy with the output number you display, try calling **.formatted()** on it – e.g. **someDouble.formatted()**. This will cause iOS to format the number for printing, adding thousands separator and removing a lot of the noise from unnecessary decimal places

Apple’s dedicated functionality for unit conversions: <https://www.hackingwithswift.com/example-code/system/how-to-convert-units-using-unit-and-measurement>