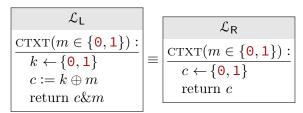
You can write your homework completely in HybLang! You can even put raw LATEXin the annotations in HybLang! Is it just me or is

$$\pi \approx 3!$$

We are tasked to show that



are interchangeable. This obviously not the case, since the distinguishing program

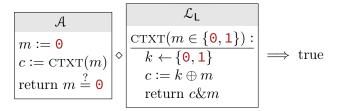
$$A$$

$$m := \mathbf{0}$$

$$c := \text{CTXT}(m)$$

$$\text{return } m \stackrel{?}{=} \mathbf{0}$$

always returns true when linked to library L. Since we have



and

$$\begin{vmatrix} \mathcal{A} \\ m := \mathbf{0} \\ c := \text{CTXT}(m) \\ \text{return } m \stackrel{?}{=} \mathbf{0} \end{vmatrix} \diamond \frac{\mathcal{L}_{\mathsf{R}}}{ \begin{matrix} \text{CTXT}(m \in \{\mathbf{0}, \mathbf{1}\}) : \\ c \leftarrow \{\mathbf{0}, \mathbf{1}\} \end{matrix}} \implies \frac{1}{2}$$

so we know that

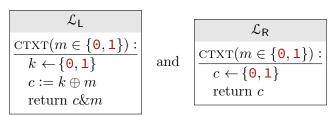
$$\mathcal{A}$$

$$m := \mathbf{0}$$

$$c := \text{CTXT}(m)$$

$$\text{return } m \stackrel{?}{=} \mathbf{0}$$

is a distinguishing program, so it is not the case that



are interchangeable, thus proving a counterexample of the claim.