The alphabet is \{0, 1\}.

(a) Draw a 2-state FA for the language \(L_1\) of all strings ending with 0.

(b) Draw a 2-state FA for the language \(L_2\) of all strings containing an even number of 1’s (and yes, zero is even).

(c) Use the product construction to produce an FA for the language \(L_1 \cup L_2\).