The set L of strings

Let L be a set of strings over $\{0,1\}$ defined recursively by:

- ▶ 1 ∈ L
- If $x \in L$ then $x10 \in L$
- If $x \in L$ then $x0 \in L$

Questions to class:

- **1**. Is $0 \in L$?
- 2. Is $11 \in L$?
- 3. Is 10110 ∈ *L*?
- 4. Find all strings of length up to 3 that are in L.

5. Give one string in L of length 10.