Exercise 5.1:
Consider the following program:

\[ p(X) \leftarrow r([a|X]) \]
\[ r([Y|X]) \leftarrow s(X) \]
\[ s([Y|X]) \leftarrow p(X) \]

a) Provide a level mapping for which the program is recurrent.
b) Provide a bounded query for this level mapping which contains at least one variable.
c) Provide an unbounded query for this level mapping.