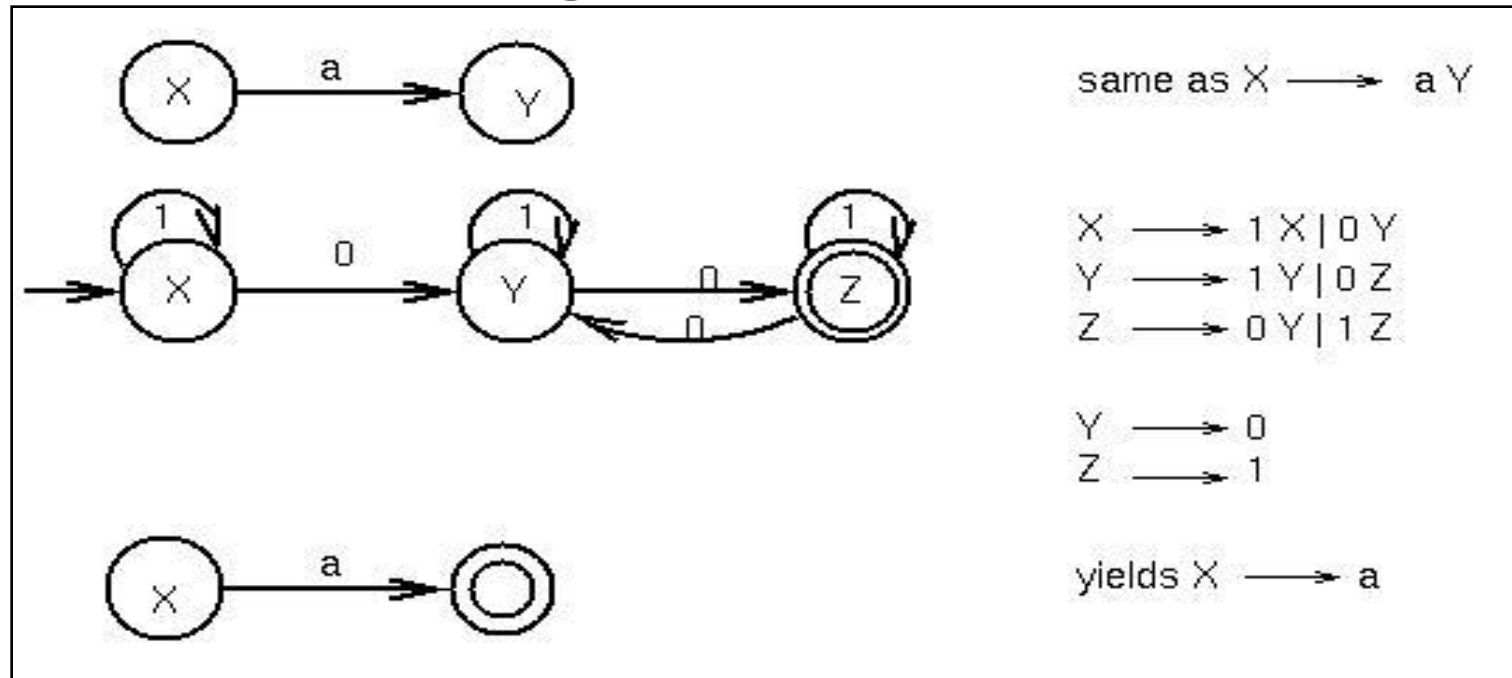


# Regular grammars

- Simplest; less powerful than context-free grammar
- Equivalent to:
  - Regular expression
  - Finite-state automaton
- A regular grammar is a context free grammar where every production is of one of the two forms:
  - $X \rightarrow aY$
  - $X \rightarrow a$for  $X, Y \in \text{Nonterminal}$ ,  $a \in \text{Terminal}$
- **Theorem:**  $L(G)$  for regular grammar  $G$  is equivalent to  $L(M)$  for FSA  $M$ .

# Equivalence of FSA and regular grammars



To go from regular grammar to FSA, make the following transformations:

