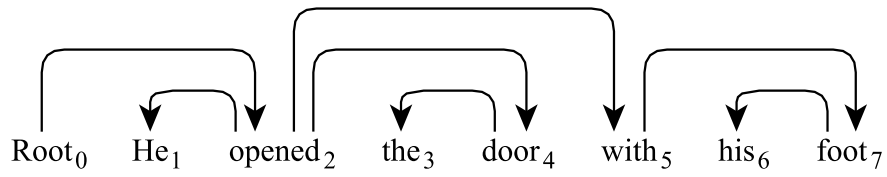


Show the sequence of transitions in a shift-reduce parser that would result in the following dependency tree.



<b>Initialization</b>	$\langle S = [w_0], I = [w_1, \dots, w_n], A = \emptyset \rangle$	
<b>Termination</b>	$\langle S, [], A \rangle$	
<b>Left-Arc</b>	$\langle w_i   S, w_j   I, A \rangle \Rightarrow \langle S, w_j   I, A \cup \{w_i \leftarrow w_j\} \rangle$	$\neg \exists w_k. (w_i \leftarrow w_k) \in A$
<b>Right-Arc</b>	$\langle w_i   S, w_j   I, A \rangle \Rightarrow \langle w_j   w_i   S, I, A \cup \{w_i \rightarrow w_j\} \rangle$	$\neg \exists w_k. (w_k \rightarrow w_j) \in A$
<b>Shift</b>	$\langle w_i   S, w_j   I, A \rangle \Rightarrow \langle w_j   w_i   S, I, A \rangle$	
<b>Reduce</b>	$\langle w_i   S, w_j   I, A \rangle \Rightarrow \langle S, w_j   I, A \rangle$	$\exists w_k. (w_i \leftarrow w_k) \in A$

Transition sequence (11 steps):

1. Shift: He
2. Left-Arc: He  $\leftarrow$  opened
3. Right-Arc: Root  $\rightarrow$  opened
4. Shift: the
5. Left-Arc: the  $\leftarrow$  door
6. Right-Arc: opened  $\rightarrow$  door
7. Reduce: door
8. Right-Arc: opened  $\rightarrow$  with
9. Shift: his
10. Left-Arc: his  $\leftarrow$  foot
11. Right-Arc: with  $\rightarrow$  foot