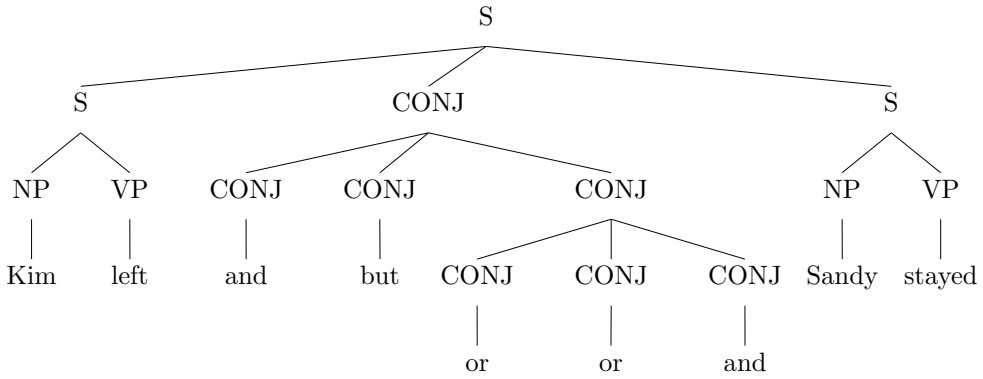
Chapter 8, Problem 5: Conjoined Conjunctions

The first pass answer is as follows:

A. Yes, our grammar does license (i), and in fact, assigns more than one tree to it. One such example is shown in part B.

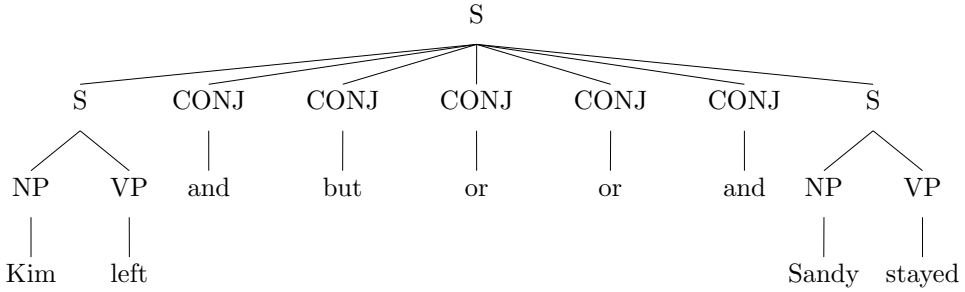
B.



This is a perfectly fine answer, and should be given full credit.

However, on closer inspection, the tree above is actually ruled out by constraints on SEM features. If we make the reasonable assumption that the lexical entries for conjunctions each have a single item on their RESTR list, then any of the phrases built out of conjunctions in the tree above will have RESTR lists with more than one predication on them (by the Semantic Compositionality Principle). This is the intended effect of the SCP, but it interacts with the constraint on the penultimate daughter of the Coordination Rule to disallow the structure above: the Coordination Rule constrains that daughter to have exactly one element on its RESTR list. Thus while the Coordination Rule can license the constituent *and but or or and* (note that the daughter with more than one predication on its RESTR list inside that constituent is the final daughter, not the penultimate one), it cannot take that constituent as penultimate daughter in a bigger coordination phrase to build the topmost S in the tree. This is also a perfectly fine answer, and should be given full credit.

However, the grammar fragment in the textbook leaves the FORM value of conjuctions underspecified. This means that a *word* node dominating a conjunction can be coordinated with an S node, since the Coordination Rule only constrains the FORM and VAL values of the conjuncts to match. Therefore, our grammar does license this string, but only with the following tree:



Clearly, this is a bug in our grammar, which could be resolved by constraining the FORM value on the type *conj* to a distinguished value like 'cjform'.