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My testing strategy for part 1b was mainly to make sure that it parsed exactly what 1a was able to parse and didn’t parse what 1a couldn’t parse. I started off with extremely basic sentences like “she fed him”, from which I restrict the grammar to start with an nominative noun phrase and end with an accusative noun phrase. Then this easily allowed me to also accept sentences like “the dog fed the dog”, where “the dog” was a noun phrase that could be either nominative or accusative. Next, I expanded to testing with the addition of prepositional phrases where I had to parse “she fed the dog with him” but not “she with the dog fed him”. I achieved this by preventing pronouns from taking on prepositional phrase.

An interesting case I had to deal with was to make the rule “NP -> N” accept plural or pronouns. I did this by making the grammar unify being plural and having a variable case (either nominative or accusative). For pronouns, they do not specify plurality in their lexicon, so they will successfully be accepted by this grammar and for nouns, they must be plural to be accepted.