1 \textit{two vs. both} \hfill [3 points]

In what ways do \textit{two} (as a cardinal determiner) and \textit{both} (as a determiner) differ? Both seem to have ‘twoness’ about them, but they are not interchangeable. Identify three differences between them. These differences can concern your intuitions about syntactic well-formedness, meaning, and/or use. Notes:

- For each difference, you’ll want to present a pair of sentences that differ only in that one uses \textit{two} and the other uses \textit{both}.

- If well-formedness is the issue, presumably one of the pair will strike you as ungrammatical and the other grammatical. Use the linguist’s * to mark the ungrammatical one. In 1–2 sentences, articulate what you see as the nature of the contrast.

- If meaning/use is the issue, both sentences should be well-formed, but they should differ in what they assume about the context of utterance and/or what they convey. In 1–2 sentences, articulate what you see as the difference(s).

If you are interested in doing this problem in another language, see or write to the staff to discuss that idea – there are lots of options.

2 \textbf{Exceptives} \hfill [2 points]

Consider the following proposal for the meaning of the complex determiner \textit{every}... except Kermit:

\begin{align*}
\text{(E)} \quad \text{[every}... \text{except Kermit]} & = \{ \langle A, B \rangle : (A - \{ \text{[Kermit]} \}) \subseteq B \} \\
\end{align*}

i. Does meaning (E) entail that Kermit is a member of the set \(A\) (the restriction)? Explain why or why not (1–2 sentences).

ii. What is your intuition: does a sentence like \textit{every Muppet except Kermit danced} entail that Kermit is a Muppet?

iii. For a sentence like \textit{every Muppet except Kermit danced}, does meaning (E) entail that Kermit did not dance?

iv. What is your intuition: does a sentence like \textit{every Muppet except Kermit danced} entail that Kermit did not dance?
3 A hypothetical non-conservative determiner

Consider the hypothetical quantificational determiner \textit{somenon}:

\[
\llbracket \text{somenon} \rrbracket = \{ (A, B) \mid \{x \mid x \notin A \} \cap B \neq \emptyset \}.
\]

Thus, \textit{somenon hippos charged} would be true just in case there were some things that were not in the set of hippos and were in set of things that charged. Show that this hypothetical determiner is not conservative. To do this, you just need to find a counterexample – sets \( A \) and \( B \) that fail the conservativity test when given as arguments to \( \llbracket \text{somenon} \rrbracket \) – and explain why those sets constitute a counterexample.

4 Cardinals and universal generalizations

Keenan offers the universal generalization “Lexical NPs are always monotonic” (p. 49). Here, “lexical” means just a single word in the intuitive sense, and we assume that Keenan intends to say “always monotonic on their second arguments”, since \textit{most} is not monotonic on its first argument.

In light of this generalization, consider the following two analyses of the determiner \textit{three}:

\begin{align*}
\text{(E)} & \quad \{ (A, B) \mid |A \cap B| = 3 \} \quad \text{('exactly' semantics)} \\
\text{(A)} & \quad \{ (A, B) \mid |A \cap B| \geq 3 \} \quad \text{('at least' semantics)}
\end{align*}

\textbf{Task 1} One of these would violate Keenan’s generalization if used as the meaning of \textit{three}, and one of them would respect his generalization. Identify which is which, and then provide English sentences that help us to see why this is so.

\textbf{Task 2} Which of the proposed meanings seems more accurate to you empirically as a meaning for \textit{three}? In a few sentences, say which one you favor and why. (To do this, it might be easiest to show that the one you disfavor gives the wrong results for some particular case or cases.)