1  **two vs. both**  

In what ways do *two* (as a cardinal determiner) and *both* (as a determiner) differ? Both seem to have ‘twoness’ about them, but they are not synonyms. Identify two grammatical differences and one truth-conditional difference between them. Grammatical differences should be supported with minimally contrasting sentences, and truth-conditional differences should be supported with descriptions of scenarios involving claims that use these items. (If you are interested in doing this problem in another language, see or write to Chris to discuss that idea — there are lots of options.)

2  **Intersective?**  

Determine whether *most* is intersective.¹ Show how you reasoned to your answer using the definition of intersectivity on the ‘Quantifiers’ handout. Assume that the denotation of *most* is

\[
[J_{\text{most}}] = \left\{ \langle A, B \rangle \mid \frac{|A \cap B|}{|A|} > \frac{1}{2} \right\}
\]

Required ingredients:

i. Provide a sentence pair that supports the classification as intersective or not intersective, along with arrows indicating which entailment relations do and do not hold.

ii. Where an entailment relation doesn’t hold, describe a situation that shows why.

3  **Conservative?**

Consider the hypothetical quantificational determiner *somenon*:

\[
[J_{\text{somenon}}] = \left\{ \langle A, B \rangle \mid \{ x \mid x \notin A \} \cap B \neq \emptyset \right\}
\]

Thus, *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. (Note: the negation is part of the determiner, not its restriction.) Is this hypothetical determiner conservative? Required ingredients:

i. Provide a pair of sentences or a pair of statements of set theory that supports the classification as conservative or not conservative, along with arrows indicating which entailment relations do and do not hold.

ii. If an entailment relation doesn’t hold, describe a situation that shows why.

¹**Important note:** this is ‘intersective’ in the sense of the Keenan article and the ‘Quantifiers’ handout, not ‘intersective’ in the sense of the Partee article and our discussion of adjectives.
4 Cardinals and universal generalizations [3 points]

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 most is not monotonic on its first argument.

In light of this generalization, consider the following two analyses of the cardinal determiner three:

(E) \{ (A, B) \mid |A \cap B| = 3 \} ('exactly' semantics)

(A) \{ (A, B) \mid |A \cap B| \geq 3 \} ('at least' semantics)

Task 1 One of these would violate Keenan’s generalization if used as the meaning of 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. (You might use ⇒ to mean “always entails” and ⇔ to mean “does not always entail”.)

Task 2 Which of the proposed meanings seems more accurate to you empirically as a meaning for 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.)