1. We noted that factive predicates, like English realize presuppose the truth of their complements, as in They realized that Mary had left the night before. Using your own examples, identify the factive predicates from the following list: announce, assume, be aware, believe, be fearful, be glad, be sorry, be worried, know, reason, report.

2. Using the different behavior of entailment and presupposition under negation as a test, decide whether the (a) sentences below entail or presuppose their (b) counterparts. (Assume that repeated nouns, names and pronouns refer to the same entities twice.)

   (1) a. John is angry because Jim crashed the car.
   b. Jim crashed the car.

   (2) a. Zaire is bigger than Alaska.
   b. Alaska is smaller than Zaire.

   (3) a. The minister blames her secretary for leaking the memo to the press.
   b. The memo was leaked to the press.

   (4) a. Everyone passed the examination.
   b. No-one failed the examination.

   (5) a. Mr. Smith has resumed his habit of drinking stout.
   b. Mr. Smith had a habit of drinking stout.

3. Assume $p = 1$, $q = 0$, $r = 1$, $s = 0$. Give the truth value of the formula in (6) (show the truth tables). Note: Assume that $\lor$ is inclusive.

   (6) a. $(p \land q) \rightarrow (r \lor s)$
Are the formulas in (a) and (b) in (7) equivalent? Use truth tables to support your answer.

(7)  
<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>a.</td>
<td>p → q</td>
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<tr>
<td>b.</td>
<td>¬(p ∧ ¬q)</td>
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4. Consider the following two cleft sentences:

(8) It was John who Mary liked.

(9) It was Mary who liked John.

These sentences seem to describe the same situation: a situation in which Mary liked John. To put it in familiar terms, the two sentences above express the same proposition. However, they seem appropriate in different conversational contexts. This is because they carry different presuppositions. What are they?

5. Does any of the conditional sentences below carry the presupposition that John has children? Explain your answer in light of the discussion in class about presupposition projection in conditional sentences. (Co-subscribing indicates co-reference.)

(10) If John’s children$_i$ are at home, they$_i$ must be asleep.

(11) If John has children$_i$, they$_i$ must be asleep.

(12) If John$_i$ is at home, his$_i$ children are asleep.

In light of your discussion of (10) and (11), say whether the following sentences carry any presupposition. What’s your conclusion about presupposition projection in a sentence of the form [ϕ and ψ]? is and a hole, a plug or a filter?

(13) John’s children$_i$ are awake and they$_i$ are having breakfast.

(14) John has children$_i$ and they$_i$ are having breakfast.

(15) John$_i$ is at home and his$_i$ children are having breakfast.