I. Sample Arguments
   A. Argument 1:
      1. Quebec will secede unless Canada gets a new constitution.
      2. The health care issue dominates the legislature.
      3. Canada gets a new constitution provided that the health care issue doesn’t dominate the legislature.
      4. So, Quebec will secede
   B. Argument 2:
      1. Either fetuses are persons, or, abortion is immoral even though fetuses neither are persons nor have a right to life.
      2. THEREFORE, only if fetuses do not have a right to life is abortion not immoral.

II. Basic Logical Notions
   A. Validity applies to single schemata. It is truth under every interpretation. That is, the final column of the truth table consists only of the value $\top$.
   B. Invalidity: a schema is invalid iff it is not valid: so an invalid schema has an $\bot$ in the final column of its truth table.
   C. Satisfiability is truth under at least one interpretation: there is at least one $\top$ in the final column.
   D. Unsatisfiability is the negation of satisfiability, just as invalidity is the negation of validity.
   E. Implication applies to at least two schemata. A schema implies another if, whenever the first comes out true under an interpretation, so does the second.
      More generally, a set of schemata implies a schemata $X$ iff, whenever all of $X_1, \ldots, X_n$ come out true under an interpretation, so does $X$.
   F. Implication is the validity of the conditional: $X$ implies $Y$ if and only if $X \implies Y$ is valid.
   G. Equivalence applies to two schemata. Two schemata are equivalent just in case they have the same truth-values under every interpretation; i.e., for any given interpretation they are either both true or both false.
   H. Equivalence is the validity of the biconditional.
   I. Schemata $X$ and $Y$ are compatible just in case there is an interpretation in which both $X$ and $Y$ are true. $X$ and $Y$ are incompatible if they are not compatible.
   J. Compatibility is the satisfiability of the conjunction.

III. Homework Questions about Schemata:
   A. Which of the following is valid, which satisfiable?
1. \(-(q \supset p) \cdot p\)
2. \((p \supset q) \lor (q \supset p)\)

B. Are the following equivalent?
\(-(p \supset q) \lor r \cdot q = \neg r\)

C. Is it true that, given any two schemata, one implies the other?