1. Study Section 3.6, Leibniz's Rule as an Axiom, 4.1.

2. Prove (3.85a) Replace by *true*.
   See the hint in Exercise 3.76.

3. Prove (3.85b) Replace by *true*.

4. Prove (4.1) using the method of Section 4.1.
   That is, start with $(q \Rightarrow p)$ and get it to follow from p. This method is a requirement, not a hint.

5. Prove (4.3) Monotonicity of $\wedge$.
   Start with the RHS, eliminate the $\Rightarrow$ with (3.59) followed by (3.47a) De Morgan and (3.45) Distributivity of $\vee$ over $\wedge$. After some simplifications you can use (3.76a) Strengthening to introduce $\Leftarrow$.