Fundamental Properties of Logical Equivalence

- Read pages 53 through 55 (section 2.9)
- Some key questions to answer:

    1. List the fundamental properties of logical equivalence.
    2. Demonstrate, using these properties and the fact that $P \Rightarrow Q$ is logically equivalent $(\sim P) \vee Q$, that $\sim (P \Rightarrow Q)$ is logically equivalent to $P \wedge (\sim Q)$.
    3. Using the same rules, establish that $\sim (P \Leftrightarrow Q)$ is logically equivalent to $(P \wedge \sim Q) \vee (Q \wedge \sim P)$.

- Practice problems from section 2.9 (page 71): 2.60, 2.62, 2.64