Quiz for January 12, 2006

Are the statements \((p \to q) \to r\) and \(p \to (q \to r)\) logically equivalent? Prove your answer.

**ANSWER:** NO. If \(p\) and \(r\) are both false, then \((p \to q)\) is true and \((p \to q) \to r\) is false; but \(p \to (q \to r)\) is true. (It does not matter what value \(q\) has. Also, you may draw the entire truth table in order to find the two lines where the truth values differ.)