LGIC 010 & PHIL 005
Problem Set 2
Spring Term, 2013

1. (25 points) How long a list of truth-functional schemata involving only the sentence letters "p," "q," and "r" can you write down so that no two schemata on the list are equivalent and every schema on the list implies "$(p \oplus q) \oplus r$"?

2. (25 points) How long a list of truth-functional schemata involving only the sentence letters "p," "q," "r," "s," and "t" can you write down so that each schema on the list implies, but is not implied by, the schema following it?

3. (25 points) How long a list of truth-functional schemata involving only the sentence letters "p" and "q" can you write down so that no schema on the list implies any other schema on the list?

4. (25 points) How long a list of truth-functional schemata involving only the sentence letters "p" and "q" can you write down so that no two schemata on the list are equivalent and each schema on the list neither implies nor is implied by "$p \supset q$"?