Problem Set 2

1. 1PI four point function: following the notes, derive the relation between the connected four-point function and the one particle irreducible four- and three-point functions.

2. Feynman Rules: Derive the Feynman rule for the interaction $\mathcal{L}_I = c\phi^2 \Box \phi$ where c is some coupling constant.

3. Read "Where is the $i\epsilon$" section of Schwartz, 14.4 p.264.