1. Draw all products expected from the reaction below and circle the thermodynamic product. (3 points, problem 15-25d).

\[ \text{NBS, h} \nu \]

2. Rank the following compounds in order of increasing $\Delta H_{\text{hydrogenation}}$. (Problem 15-1, 3 points)

\[ \text{1} \quad \text{2} \quad \text{3} \]

a) 1-2-3 b) 2-3-1 c) 3-1-2 d) 3-2-1 e) 2-1-3 f) 1-3-2

3. Predict the structures of the starting materials for the following Diels-Alder reaction. (4 points)

\[ + \quad \rightarrow \quad \text{EtO} \quad \text{OCH}_3 \]