Suggest reagents and conditions for the following transformations:

### 1. (10 pts)

### 2. (10 pts)

### 3. (10 pts)

# 4. (10 pts)

## 5. (10 pts): no more than 3 steps

## 6. (10 pts)

#### 7. (10 pts): no more than 3 steps

#### 8. (20 pts)

9. (10 pts) Draw the structure of the main product (*endo*-diastereomer) of the Diels-Alder reaction of the Danishefsky diene with p-benzoquinone: