1. Write the name of the compound below in the box provided. Spelling counts!



2. Use the following compound to complete these tasks.

(a) Write the name of the compound in the box provided. (Hint: a Cl substituent is called “chloro” and takes higher priority in numbering than alkyl groups. All the other usual naming rules apply.)

(b) Draw both chair conformers in the boxes provided.

**Chair A Chair B**

(c) Identify the higher energy conformer (A or B): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(d) Explain your choice in 1-2 sentences.

3. Use the following compound to complete these tasks.



(a) In the boxes provided, draw all three **staggered** Newman projections. Draw your Newman projection looking down the C1-C2 bond, placing C1 in front.

 Newman 1 Newman 2 Newman 3

(b) Rank your Newman projections from highest to lowest energy.

 \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_

(c) Explain your ranking in 1-2 sentences.

(d) Convert the highest energy Newman projection to a skeletal/3-D structure.