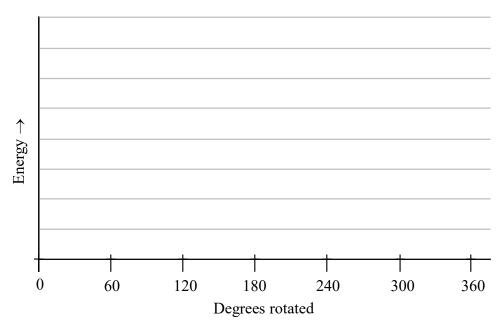
Name: Day/Time:

STOP!! First, read Klein Sections 4.7 and 4.8, and work on SkillBuilder 4.8.

a) By rotating the front carbon clockwise and  $60^{\circ}$  at a time, complete the series of Newman projections ( $0^{\circ} \rightarrow 360^{\circ}$  rotation). Assign a label to each (**A**, **B**, etc.) for use in part b.

$$\begin{array}{c} CI \\ CH_3 \\ H \\ CI \\ A \end{array}$$

b) Sketch an energy diagram showing the relative energies of the above conformers. Start with **A** at 0°. Remember to fully label your diagram (**A**, **B**, **C**, etc.).



(Hint: first determine which are <u>highest</u> in energy, which are <u>lowest</u> in energy and which have the <u>same</u> energy)