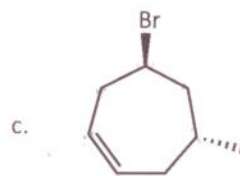
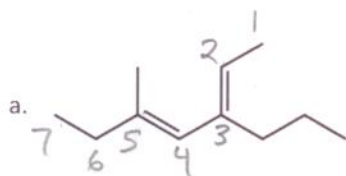


Quiz 5 (30 points)

Name Key

1. Name the following compounds. Don't forget to assign any stereochemistry using the correct notation. (15 points)

*(4S, 6R)-4-bromo-6-methyl cycloheptene*



*(2E, 4E)-5-methyl-3-propylhepta-2,4-diene*  
*bicyclo[2.2.1]hept-2-ene*

2. Consider the following  $S_N2$  reaction:

(15 points)



- Assign the configuration of the chirality center in the substrate.
- Assign the configuration of the chirality center in the product.
- Does this  $S_N2$  process occur with *inversion* or *retention*? Explain.

*Yes, the compound undergoes inversion, yet the configuration of the product is the same as the starting material.*

*Inversion doesn't require the configuration to go from R to S (or vice versa) - just a visual inversion is evidence of a back-side attack in the  $S_N2$  mechanism*