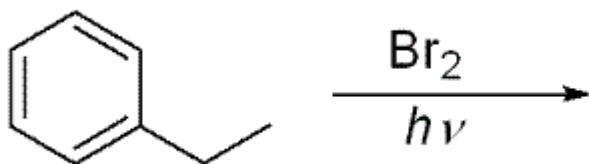


 **Preview Assessment: Workshop 1****Name** Workshop 1**Instructions** This workshop is due at 5:00 AM on Thursday, January 29. Future workshops will be due on Monday mornings at 5:00 AM.**Multiple Attempts** This Test allows multiple attempts.**Force Completion** This Test can be saved and resumed later.▼ **Question Completion Status:****Question 1****1 points** [Save](#)

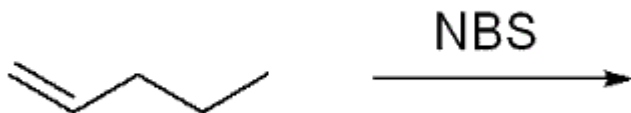
Predict the major Br monosubstitution product of this reaction.

**Question 2****1 points** [Save](#)

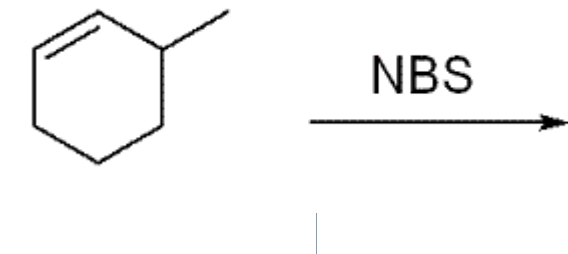
Predict the major Br monosubstitution product of this reaction.

**Question 3****1 points** [Save](#)

Predict the major Br monosubstitution product of this reaction.

**Question 4****1 points** [Save](#)

Predict the major Br monosubstitution product of this reaction.

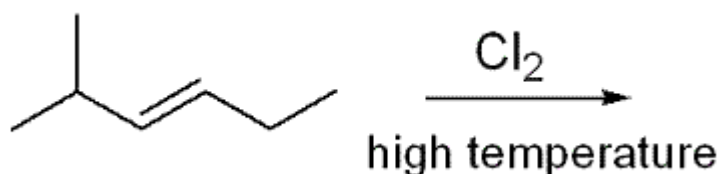


Question 5

1 points

[Save](#)

Predict the major monosubstitution product and write a full radical chain mechanism for the following reaction. Be sure to include all necessary chain initiation, propagation and termination steps.



One of the steps of your mechanism should include a reaction where a Cl atom abstracts a H atom from the original molecule to give a carbon based radical. **Draw the two best resonance structures for this radical.**

MarvinSketch allows you to specify that an atom in the molecule is a radical. This functionality is available via the Atom Pop-up Menu. To change an atom into a radical, right-click on it to access the Atom Pop-up Menu. Select the type of radical from the **Radicals**

submenu. A radical symbol will appear next to the atom and a valence check will be run with errors highlighted.

Draw both of your two resonance structures in Marvin Sketch at the same time, then press the magic button to generate the SMILES. Copy the SMILES into the answer blank.



Question 6

1 points

[Save](#)

Chapter 13 (Solomons and Fryhle) discusses conjugation and various reactions of 1,3-dienes. In CHE 321 we discussed various ways to make alkenes, but we did not discuss methodology for making dienes. Fortunately we can apply some of our standard CHE 321 reactions to this important problem. Review the attached **CHE 322 Study Guide** on

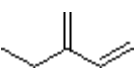
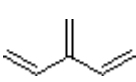
1,3-Diene Syntheses and then complete the following problem. You can find the Study Guides posted on the course web site at:

<http://www.ic.sunysb.edu/Class/che322jl/studyguides/>

Predict the product of the following reaction sequence.



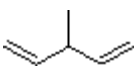
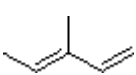
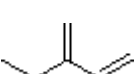
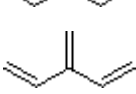
- a.
- b.

- c. 
- d. 

Question 71 points [Save](#)

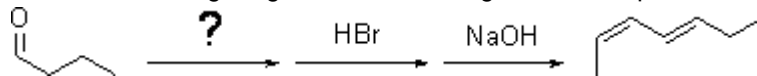
Predict the product of the following reaction sequence.

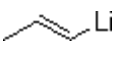
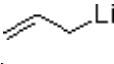
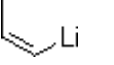
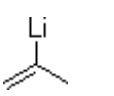


- a. 
- b. 
- c. 
- d. 

Question 81 points [Save](#)

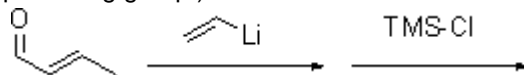
Predict the missing reagent in the following reaction sequence.

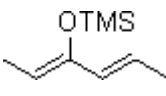
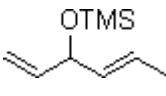



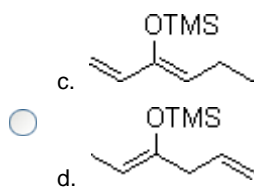
- a. 
- b. 
- c. 
- d. 

Question 91 points [Save](#)

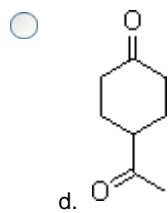
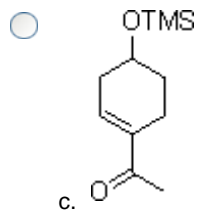
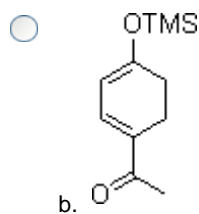
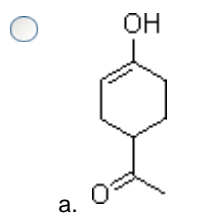
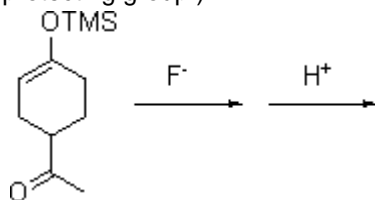
Predict the product of the following reaction sequence. (TMS is the trimethylsilane protecting group.)



- a. 
- b. 
- c. 

**Question 10****1 points** [Save](#)

Predict the product of the following reaction sequence. (TMS is the trimethylsilane protecting group.)

[Save](#)[Submit](#)