

Be sure to include (1) your name, (2) your UT EID, and (3) your signature on each uploaded page

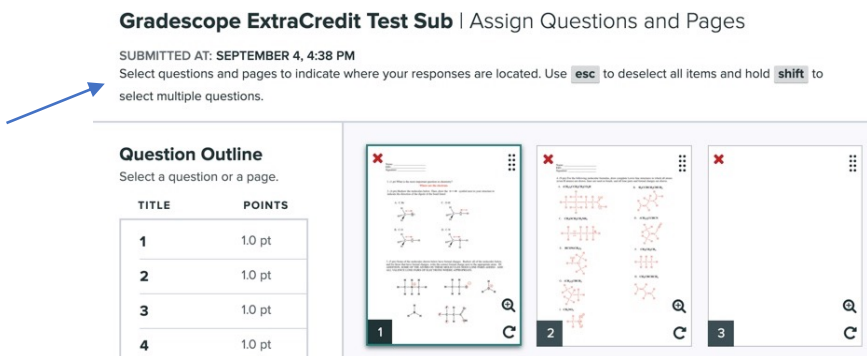
For the Gradescope portion of both weekly homework and midterm exams, you will be required to write answers to all questions, either on paper or using an electronic tablet (e.g. an iPad) and upload them to the appropriate grade scope assignment.

This is the Gradescope portion of your Midterm Exam 1. For this assignment, solve the problems on a separate sheet, and then only upload clearly labeled answers. Failure to clearly indicate the correct answer, providing multiple answers, mislabeling of problems, uploading answers in horizontal orientation, or not assigning problems to pages will result in the loss of points, so please, do this correctly!

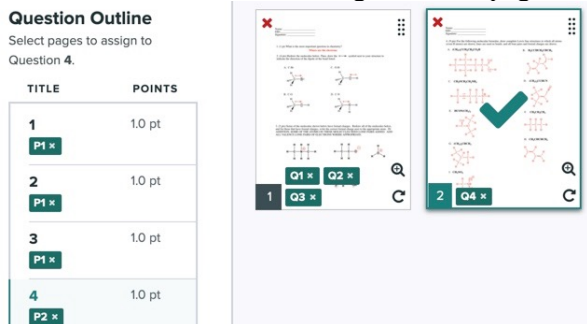
You must include your name, UT EID, and signature on each page you upload.

After answering all questions on a blank sheet and properly numbering answers, upload your work under the appropriate assignment on Gradescope.

After you upload, **you must assign where each question is on the page(s) you uploaded** so we can grade it. Note that assigning questions to specific pages in your upload does not affect your submission time: the assignment is turned in once you have uploaded the assignment and reached the Gradescope webpage below. This means you have no reason to not spend a minute or so and tell us where answers are within your submission pages. *Failure to do this will result in losing points on the assignment.* Note the blue arrow pointing out instructions.



In the picture below, you can see that questions 1-3 were assigned to page 1, and question 4 was assigned to page 2. You are required to assign all question numbers in the ‘Question Outline’ to the pages you uploaded, so that we always grade what you want us to grade for each question. If a question is answered on multiple pages, assign that question to all relevant pages! If the images are not rotated to be upright in your submission, please rotate them using the arrow shown on the bottom right of each page.



Be sure to include (1) your name, (2) your UT EID, and (3) your signature on each uploaded page

An example showing what a Gradescope submission could look like is below:

- Name
- UT EID
- Signature
- Properly numbered answers on a blank page, no need to copy the question
- Uploaded in vertical direction

Name: Student McStudent pants

UT EID: abc123

Signature: Student McStudent pants

Assignment: Weekly HW #1, Gradescope Portion

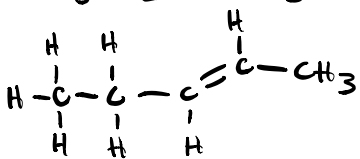
1. Where are the electrons?

~~2A. 13~~ 2A. 13 ← *If you make a mistake, clearly erase/scribble it out and note what you want to be graded.*

2B. 4

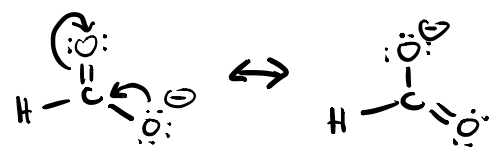
3A. ↑ 3B. ↘ 3C. No dipole

4A. $\text{CH}_3\text{CH}_2\text{CH}=\text{CHCH}_3$



Feel free to box answers/ add lines to clearly separate your answers

5.

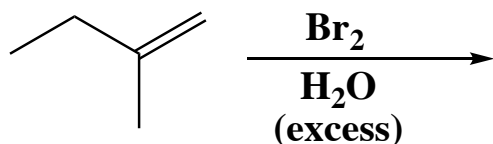


6A. $\pi_{C_{2p}-C_{2p}}$ 6B. $\sigma_{C_{sp^3}-H_{1s}}$

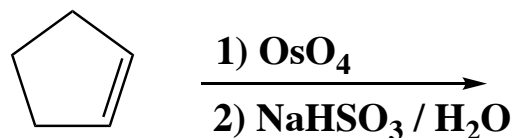
Be sure to include (1) your name, (2) your UT EID, and (3) your signature on each uploaded page

Questions 1-4 are worth a combined total of 24 points.

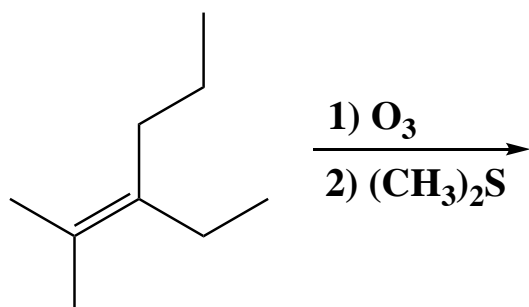
1 – 4. For the following reactions, draw the predominant product or products. You must draw the structures of all the product stereoisomers and indicate stereochemistry with wedges and dashes. If a racemic mixture is created, you must write "racemic" under the structures.



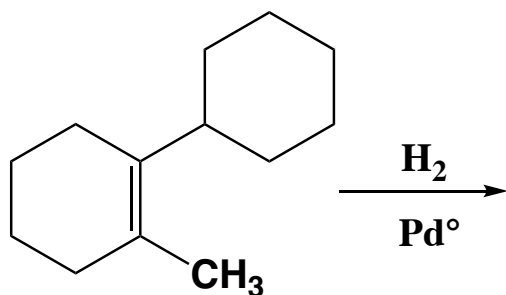
1. ?



2. ?



3. ?

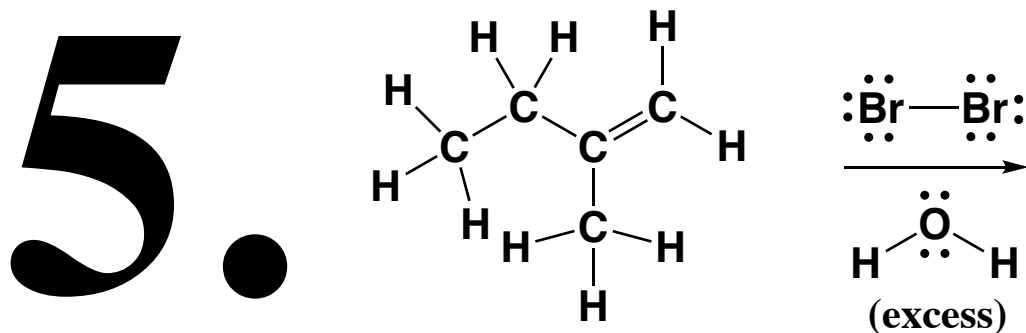


4. ?

Be sure to include (1) your name, (2) your UT EID, and (3) your signature on each uploaded page

Questions 5 and 6 are mechanism questions and worth a combined total of 35 points.

5. Draw the complete reaction mechanism for the halohydrin formation from the reaction of the following alkene with Br_2 and H_2O , as shown below. Use arrows to indicate the movement of all electrons, and be sure to write all lone pairs, all formal charges, and all the products for each step of the mechanism. Remember, I said all the products for each step! You only need to draw one stereoisomer of a chiral intermediate or product (using wedges or dashes as appropriate). If a new chiral center is created in an intermediate or product, mark it with an asterisk and label the molecule as 'racemic', if appropriate.



6. Read these directions carefully. For the reaction shown below, draw the reaction mechanism for the rearranged product only. Although non-rearranged product is also formed, we are not interested in that mechanism. Use arrows to indicate the movement of all electrons, and be sure to write all lone pairs, all formal charges, and all the products for each step of the mechanism. Remember, I said all the products for each step! You only need to draw one stereoisomer of a chiral intermediate or product (using wedges or dashes as appropriate). If a new chiral center is created in an intermediate or product, mark it with an asterisk and label the molecule as 'racemic', if appropriate.

