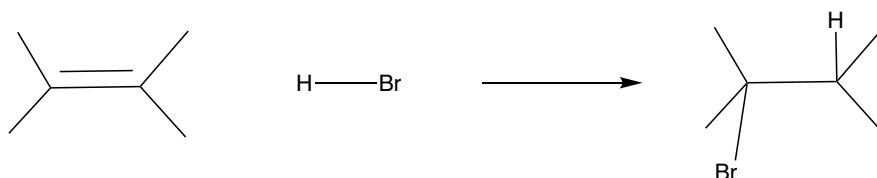


Problem Set #2
(Due by Midnight, Wednesday, March 1)

Question 1

Use curly arrows to describe the mechanism of the following reaction:

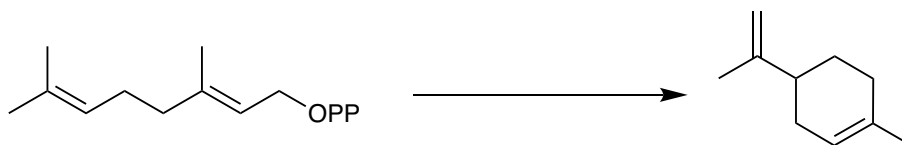
**Question 2**

Give a specific example of each of the following reactions.

- a) Acid/base reaction
- b) Substitution reaction
- c) Electrophilic addition to a double bond
- d) Electrophilic aromatic substitution

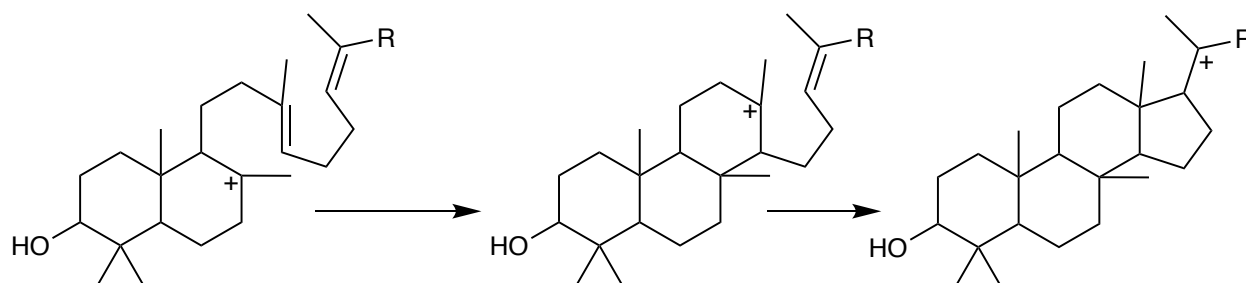
Question 3

Write out the steps involved in the following terpene biosynthesis.



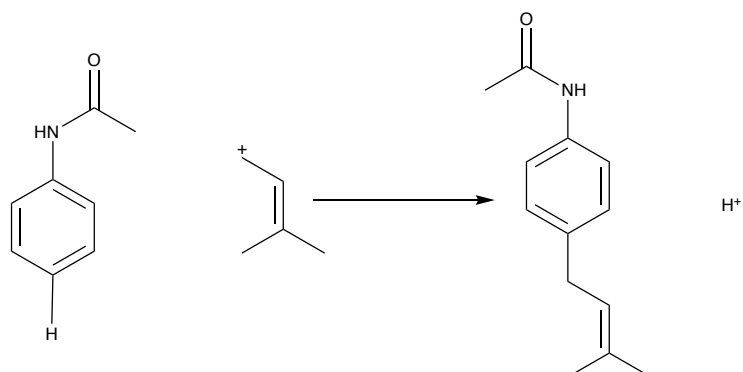
Question 4

Show, using curly arrows, the movement of electron pairs in the following reactions:



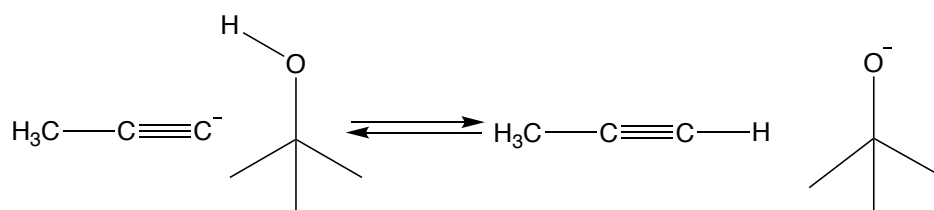
Question 5

Describe the mechanism of the following reaction:



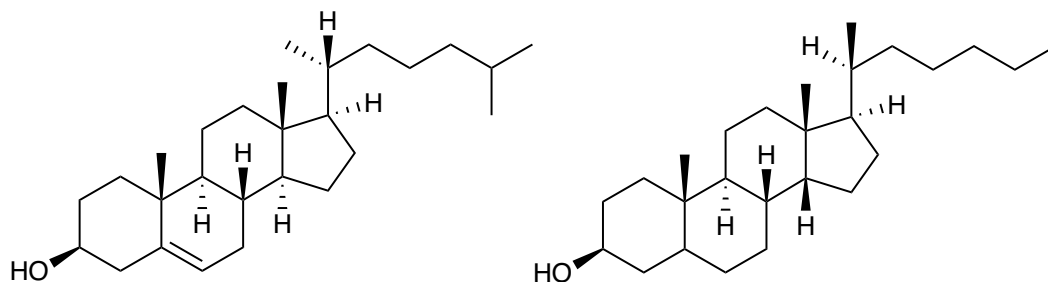
Question 6

What is the favored direction for the following reaction?



Question 7

Mark the differences (four) between the following two structures using arrows:



Question 8

Draw all resonance structures for the following:

