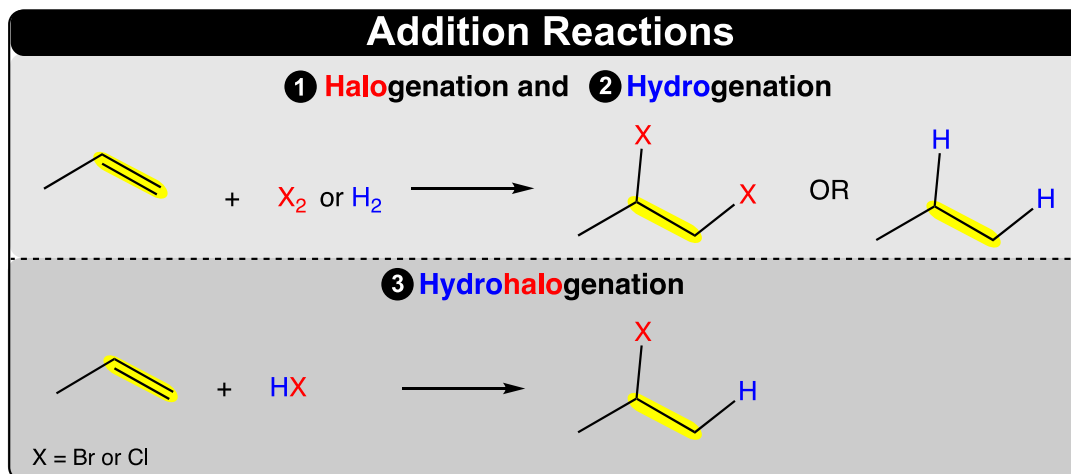


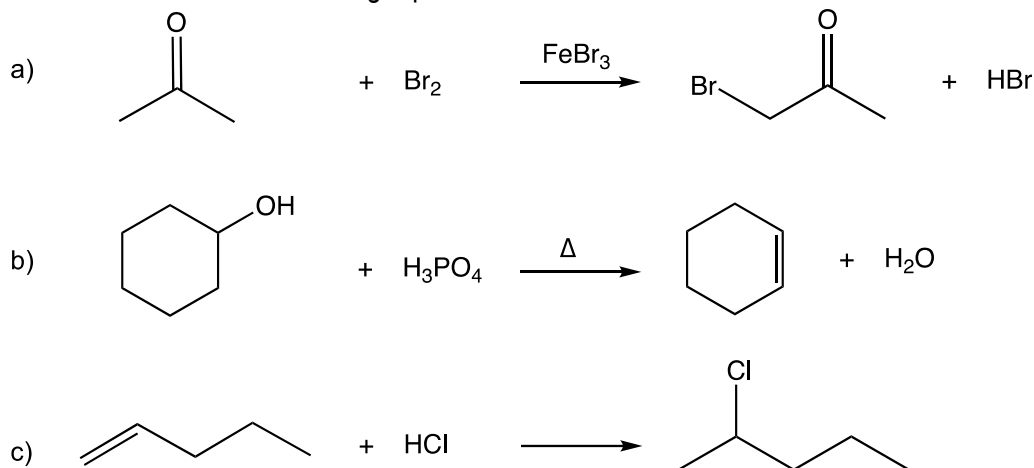
## CONCEPT: INTRO TO ADDITION REACTIONS

- Alkenes and alkynes undergo \_\_\_\_\_ reactions.
  - Addition Reaction:** addition of atoms to \_\_\_\_\_, results in double or triple bond \_\_\_\_\_.
    - \_\_\_\_\_ bond(s) are broken, new \_\_\_\_\_ bonds are formed.
- There are \_\_\_\_\_ major types of addition reactions: (1) Halogenation, (2) Hydrogenation, (3) Hydrohalogenation.



- \_\_\_\_\_ of reagent needed for every  $\pi$  bond.
  - Double bond = \_\_\_\_\_  $\sigma$  & \_\_\_\_\_  $\pi$  bond(s)
  - Triple bond = \_\_\_\_\_  $\sigma$  & \_\_\_\_\_  $\pi$  bond(s).

**EXAMPLE:** Which of the following represents an addition reaction?



**PRACTICE:** How many moles of reagent are needed for the addition of the following alkyne?

