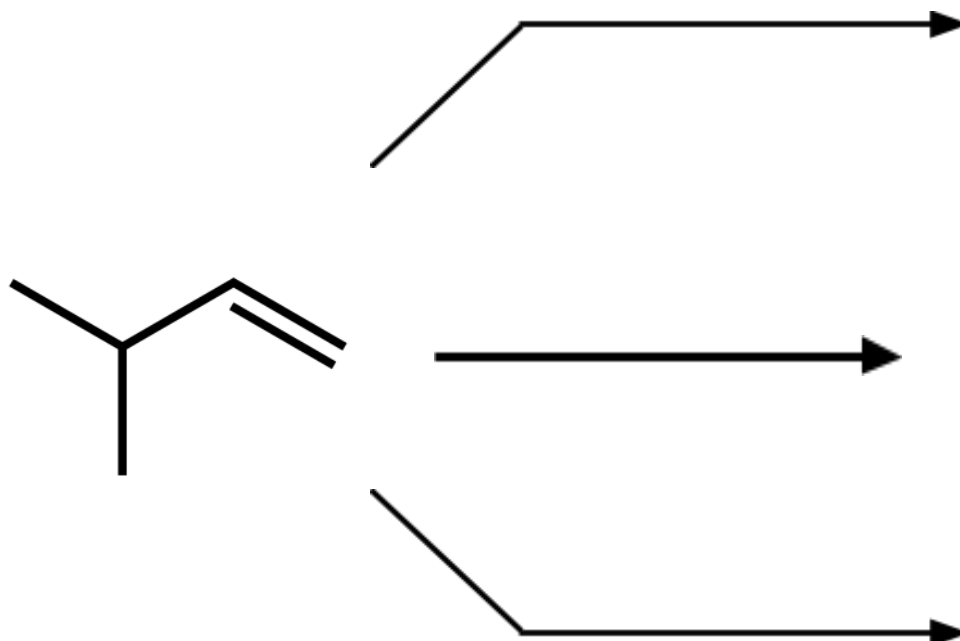


## Session 14 Worksheet

### Summary of Alkenes to Alcohols

Reaction	Regiochemistry	Stereochemistry	Rearrangements
Acid-Catalyzed Hydration			
Oxymercuration-Demercuration			
Hydroboration-Oxidation			



## Halogenation

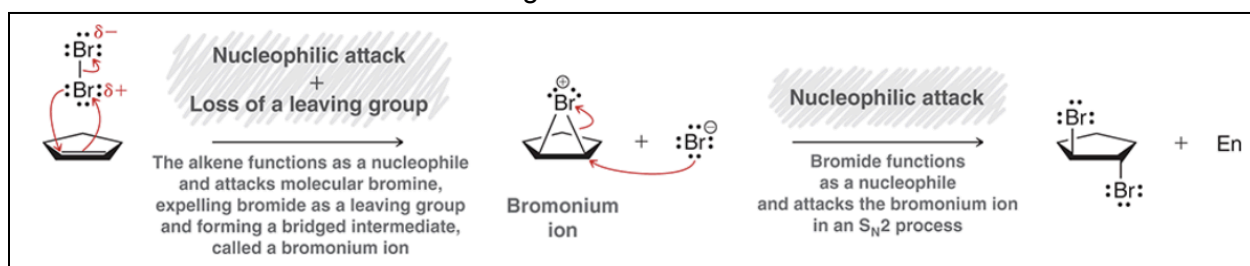
Addition of:

Stereochemistry:

Reagents:



### Halogenation Mechanism



## Halohydrin Formation

Addition of:

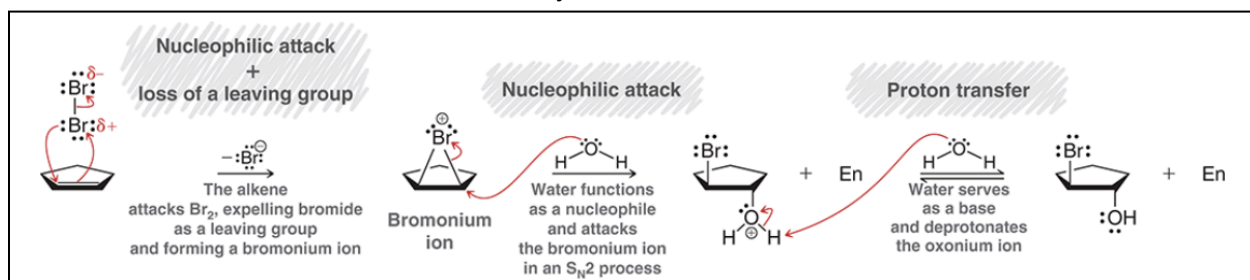
Regiochemistry:

Stereochemistry:

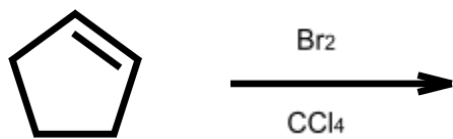
Reagents:



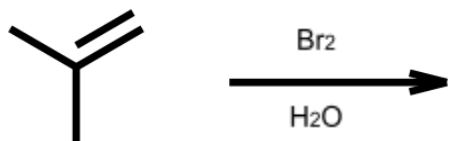
### Halohydrin Mechanism



### Halogenation Example



### Halohydrin Example



## Syn-Dihydroxylation

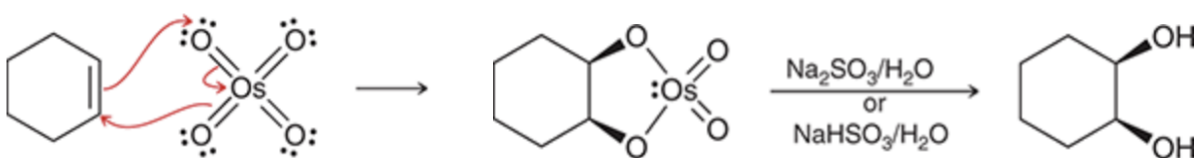
Addition of:

Stereochemistry:

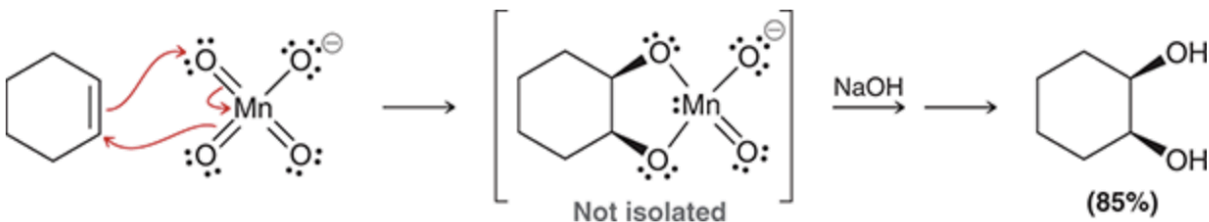
Reagents:



Mechanism w/osmium tetroxide

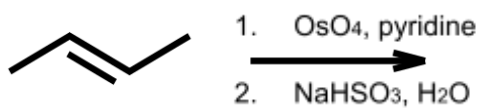


Mechanism w/cold potassium permanganate



\_\_\_\_\_ often has a lower yield, so \_\_\_\_\_ is preferred for a high yield

## Example



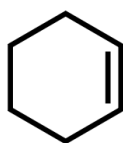
## Oxidative Cleavage via Hot Potassium Permanganate

Cleaves a double bond and creates \_\_\_\_\_

Reagents:



### Example



## Oxidative Cleavage via Ozonolysis

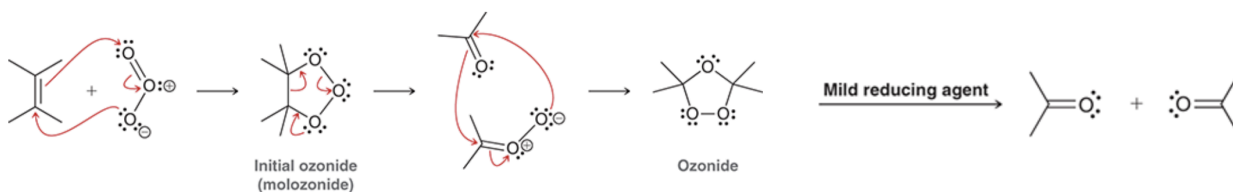
Cleaves a double bond and creates \_\_\_\_\_

Prevents \_\_\_\_\_

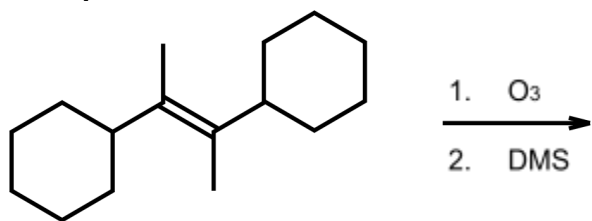
Reagents:



### Mechanism



### Example

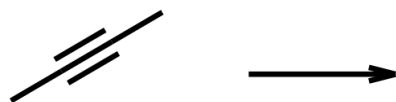


### Reactions of Alkynes

#### Halogenation (in excess)

Same reagents and reactions with alkenes, just do it twice!

#### Example



### Hydrohalogenation (in excess)

Results in a \_\_\_\_\_ dihalide

Regioselectivity:

