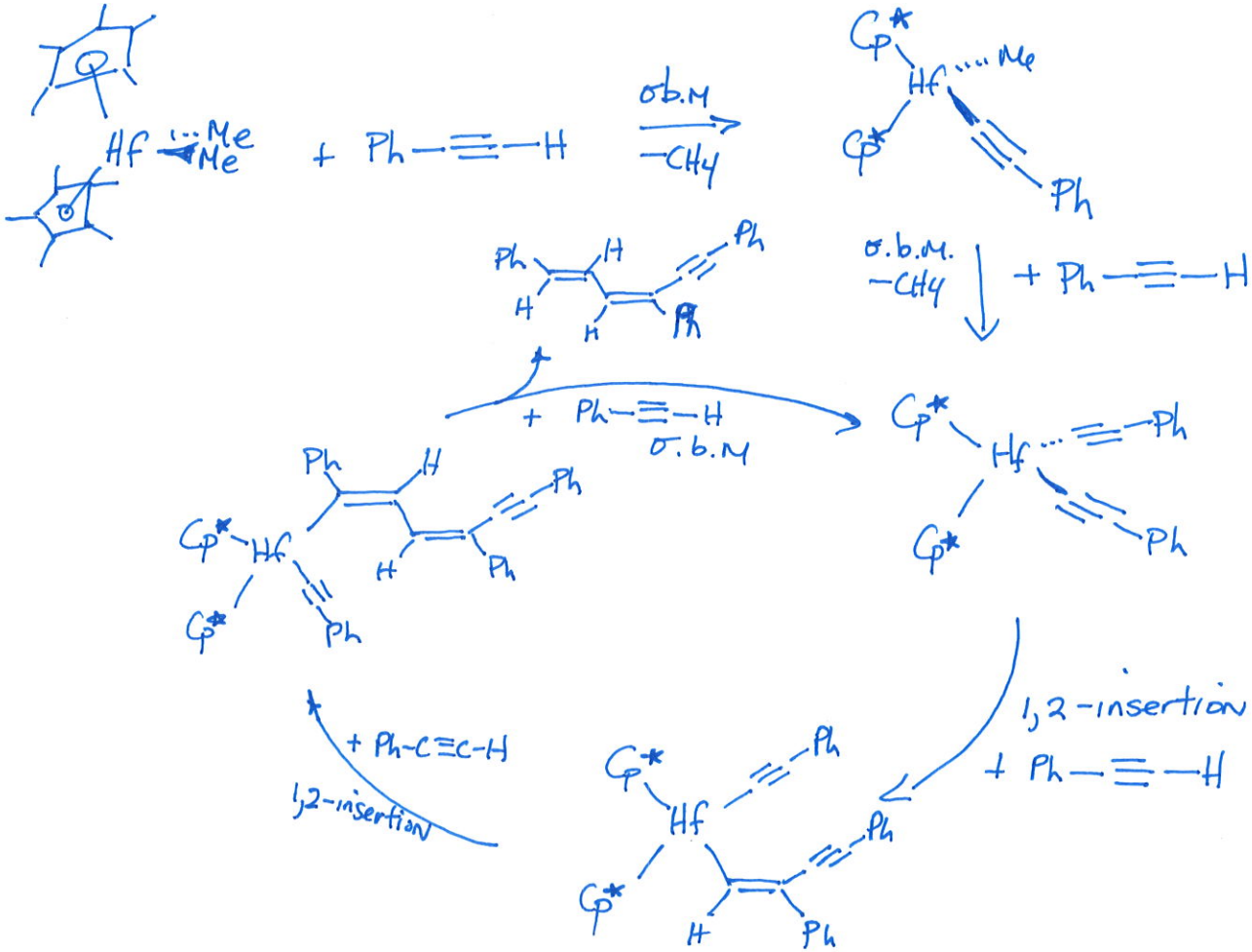
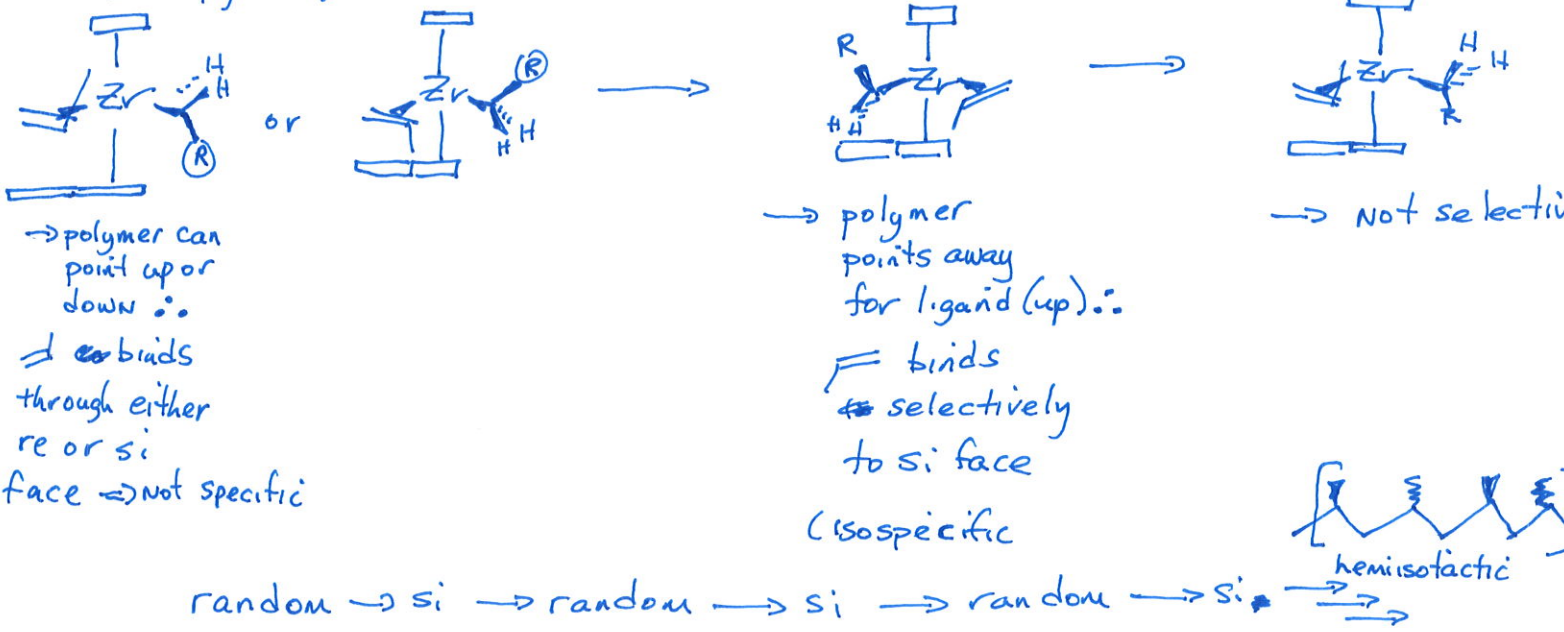


Chem 4000
Assignment #3
Answer Key.

1.

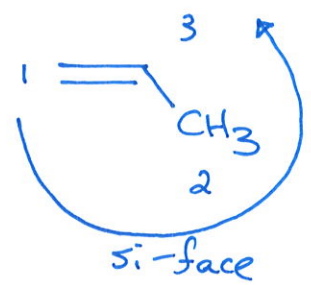
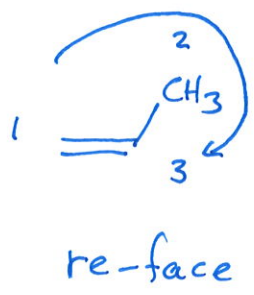


2.a) This catalyst will afford hemiisotactic polypropylene, as every second coordination/insertion is random and every other coordination/insertion is selective (via coordination to the si-face of propylene).

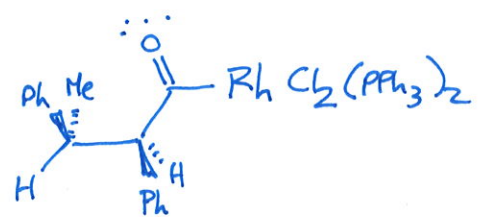


Chem 4000
Assignment #3
Answer Key

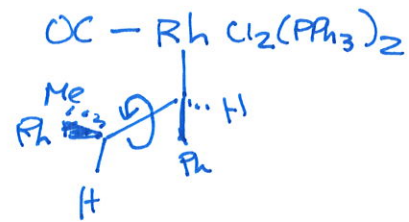
2b)



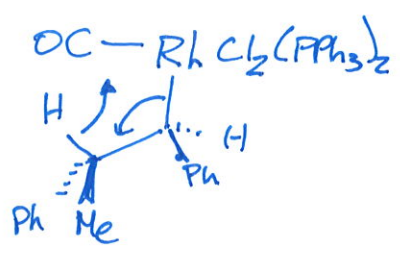
3.



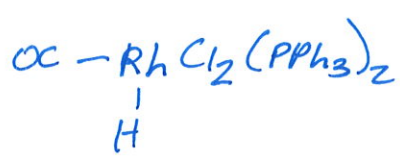
1,1-deinsertion
retention
of
configuration



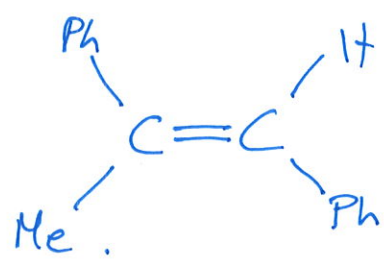
β -H elimination



β -H elimination
atoms must be
syn co-planar
 \therefore first rotation
about C-C



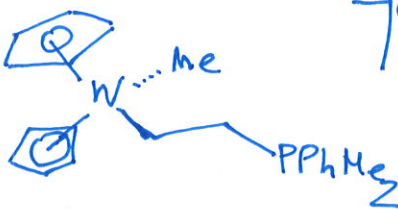
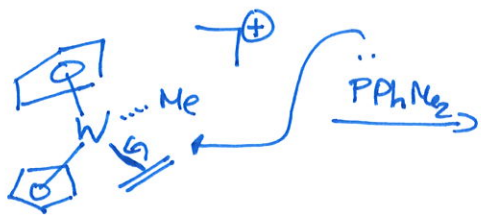
+



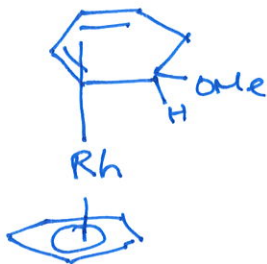
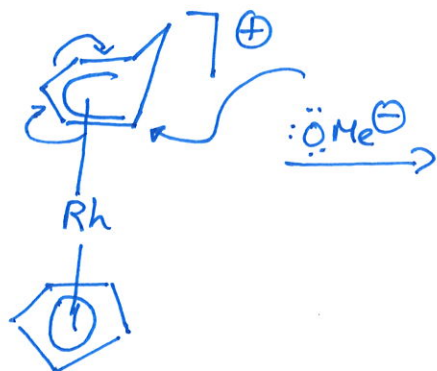
E olefin exclusively.

Chem 4000
Assignment # 3
Answer Key.

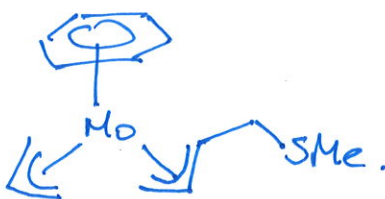
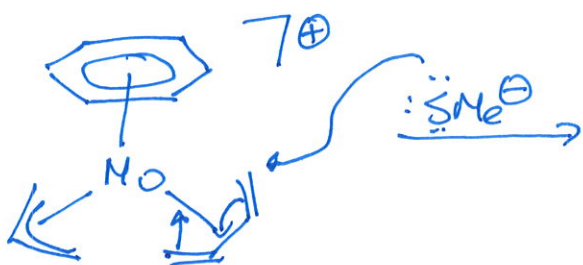
4.



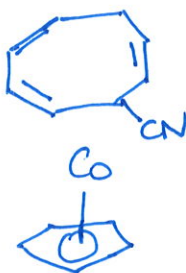
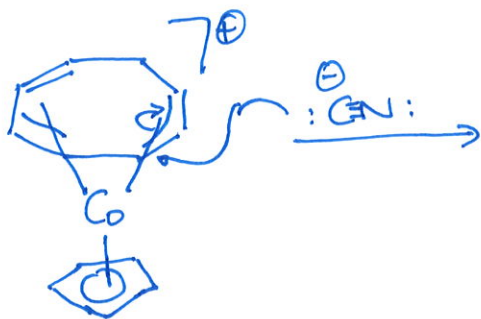
DGM Rules
→ Reactions w nucleophiles
 7^+ Rule 1: Even > Odd



Rule 2: Open > Closed



Rule 1: Even > Odd
2: Open > Closed
3: Terminal > Internal for even polyenes



Rule 1 Even > Odd
2 Open > Closed
3 Internal > Terminal for odd polyenes.