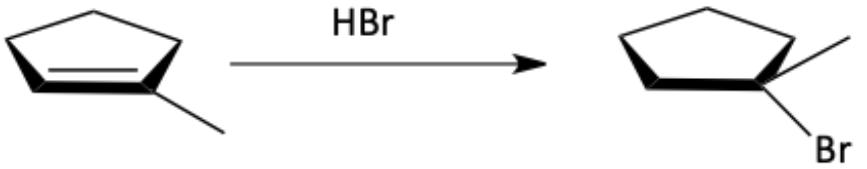
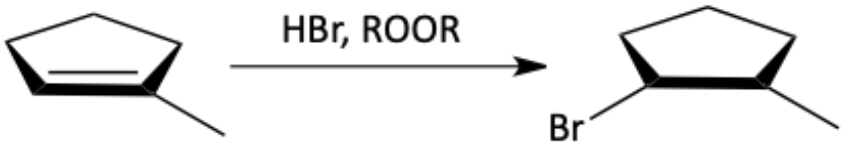
Chapter 11 Review: Answer Key

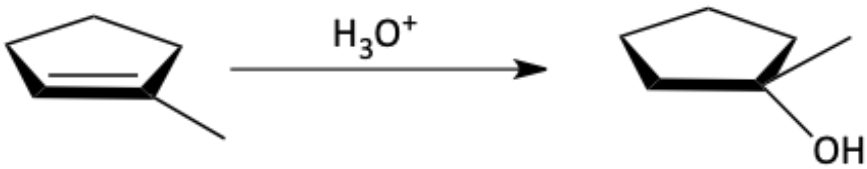
All reactions from 11.25, complete.

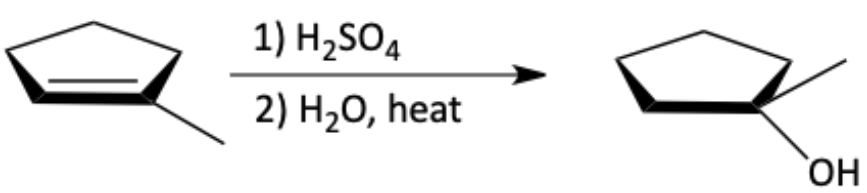
Name: _____ Date: _____

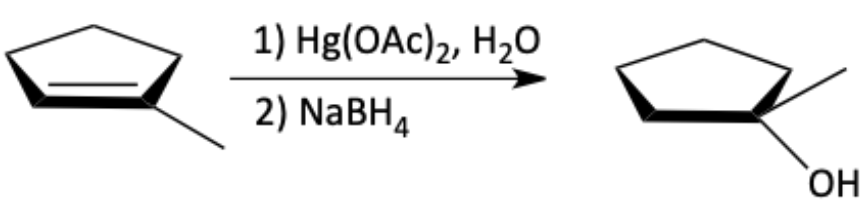
Alkene Reactions

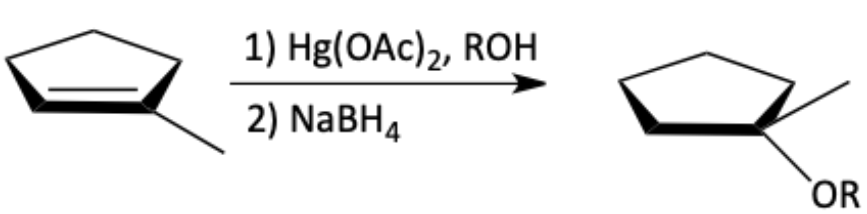
a) 

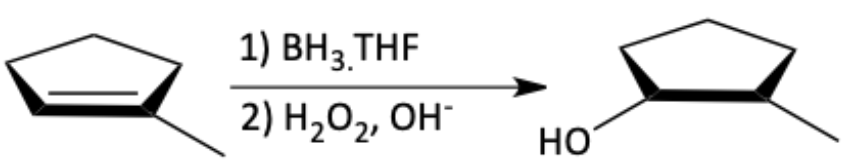
b) 

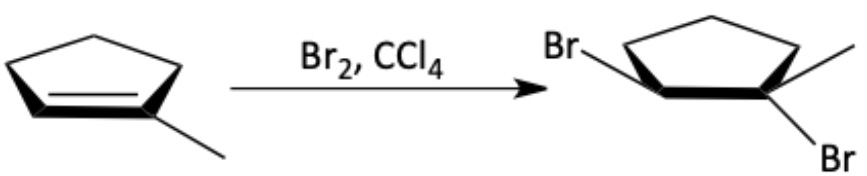
c) 

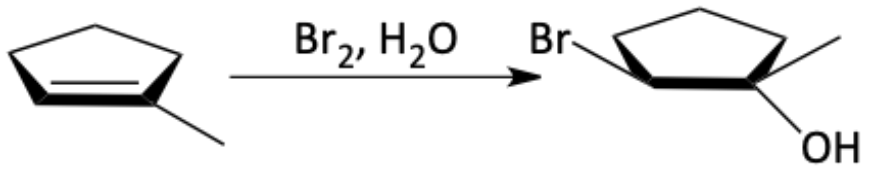
d) 

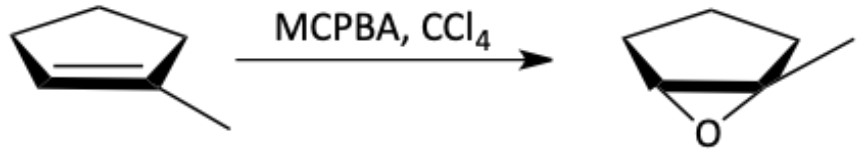
e) 

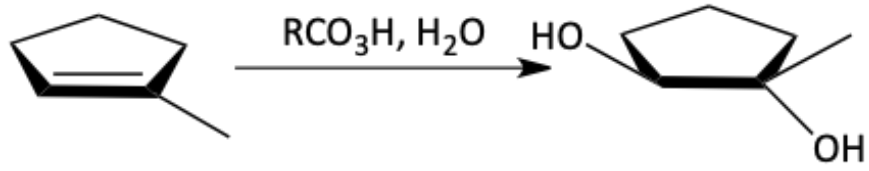
f) 

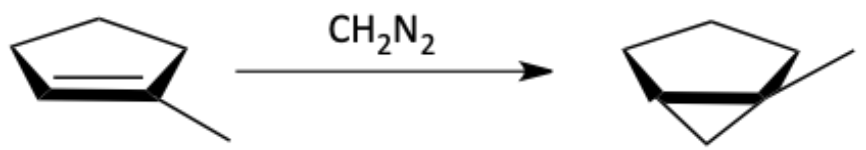
g) 

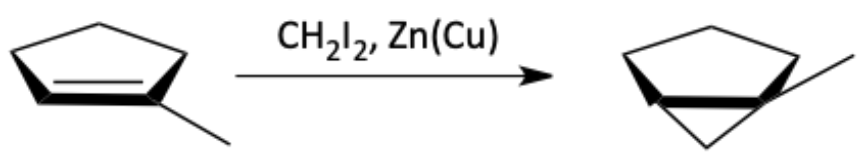
h) 

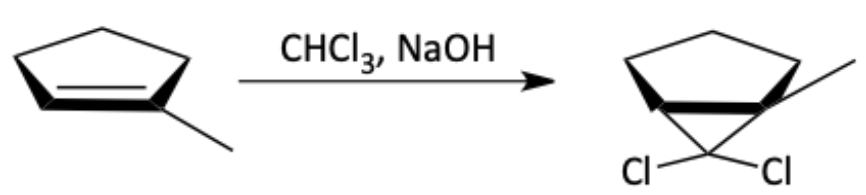
i) 
Br_2, H_2O
Br
OH

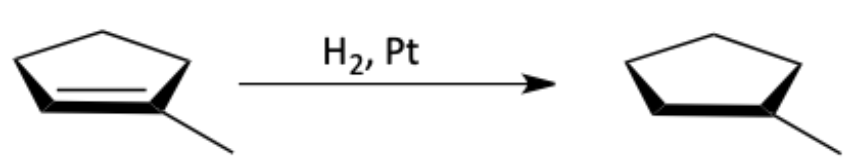
j) 
MCPBA, CCl_4
O

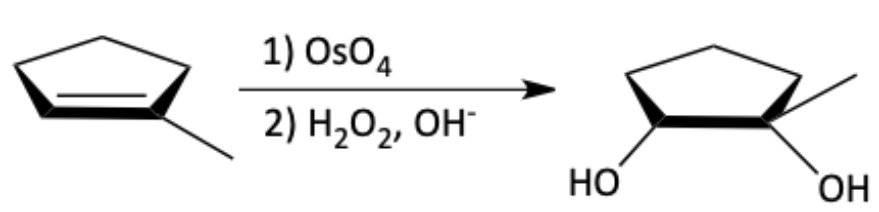
k) 
RCO_3H, H_2O
HO
OH

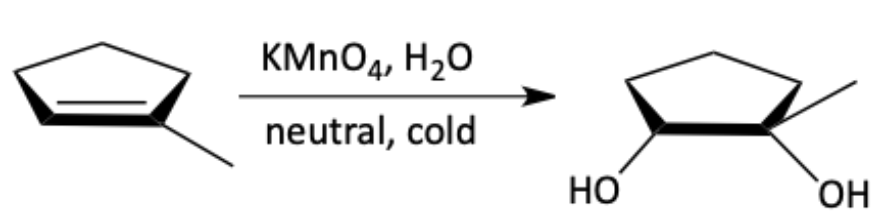
l) 
CH_2N_2

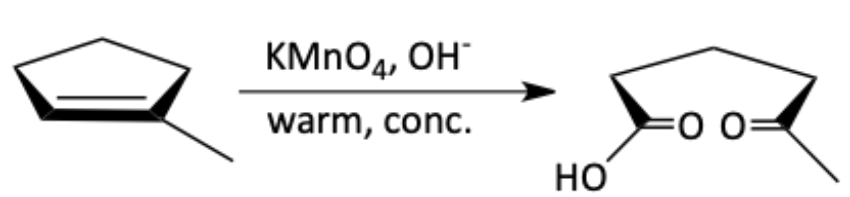
m) 
CH_2I_2, Zn(Cu)

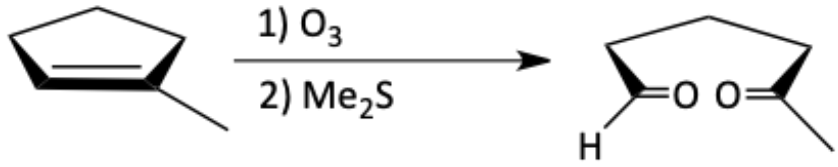
n) 
$CHCl_3$, NaOH
Cl
Cl

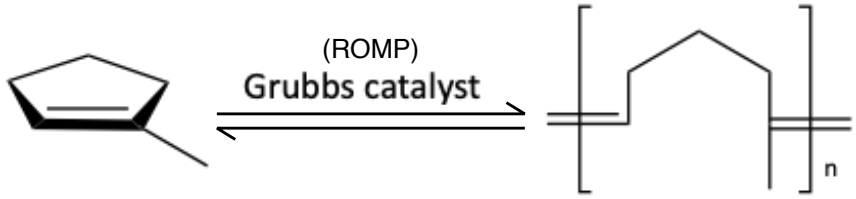
o) 
H_2, Pt

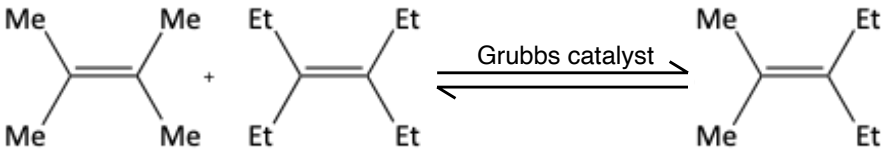
p) 
1) OsO_4
2) H_2O_2, OH^-
HO
OH

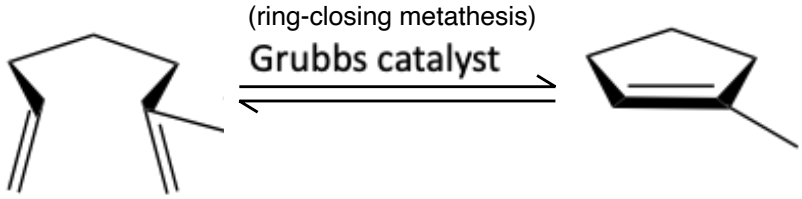
q) 
$KMnO_4$, H_2O
neutral, cold
HO
OH

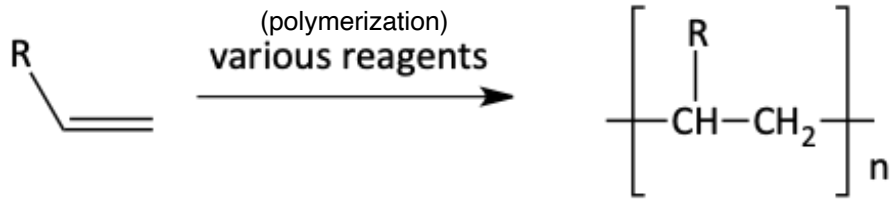
r) 
$KMnO_4$, OH^-
warm, conc.
O
O
HO

s) 

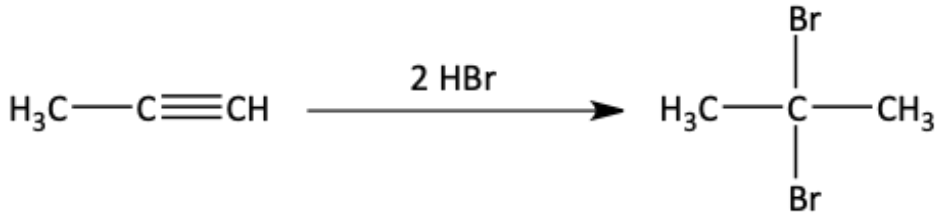
t) 

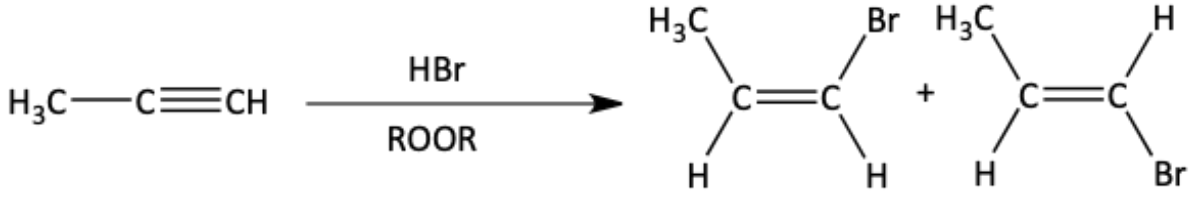
u) 

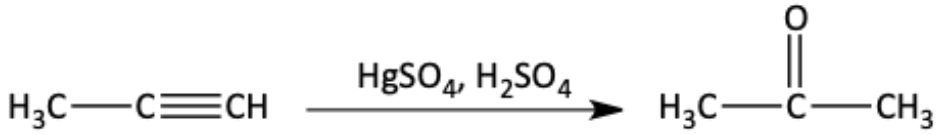
v) 

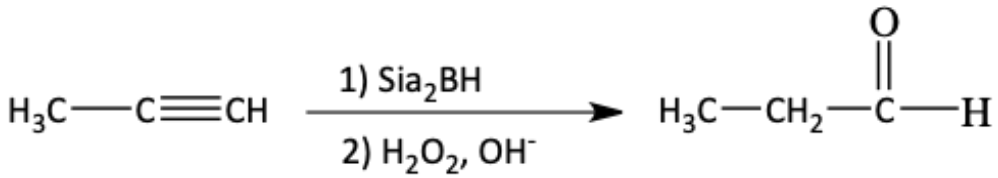
w) 

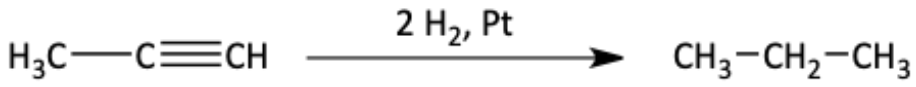
Alkyne Reactions

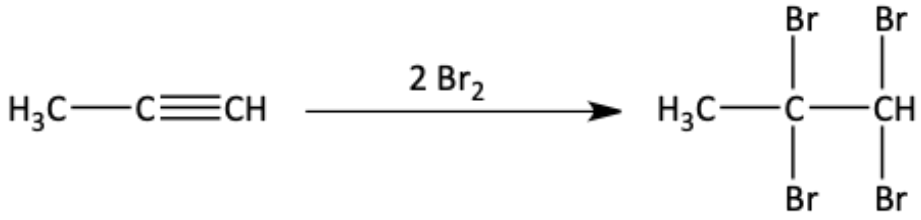
a) 

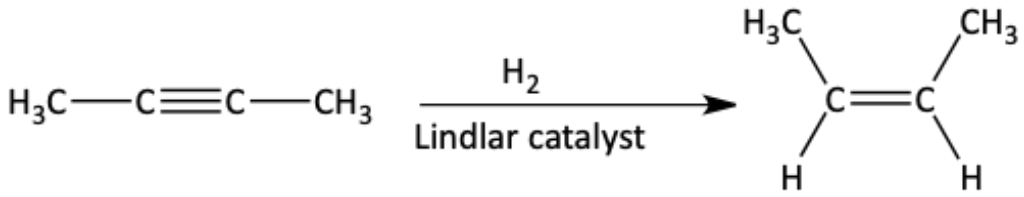
b) 

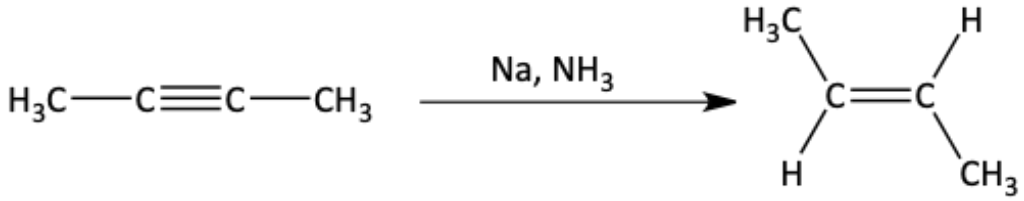
c) 

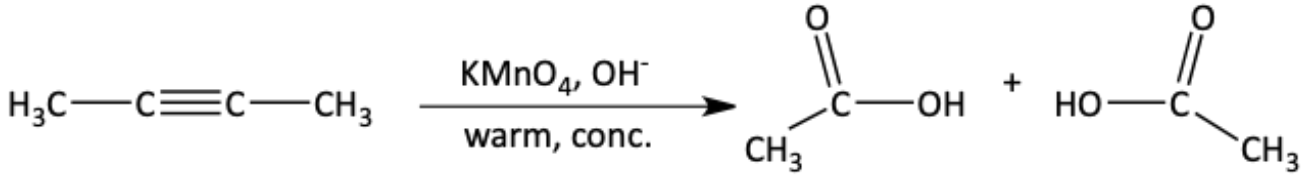
d) 
H3C—C≡CH
1) Sia2BH
2) H2O2, OH-
O
H3C—CH2—C—H

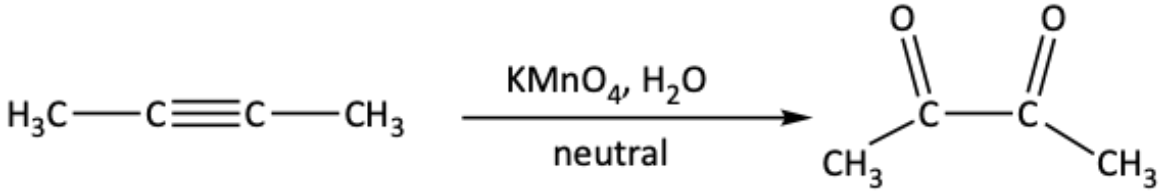
e) 
H3C—C≡CH
2 H2, Pt
CH3—CH2—CH3

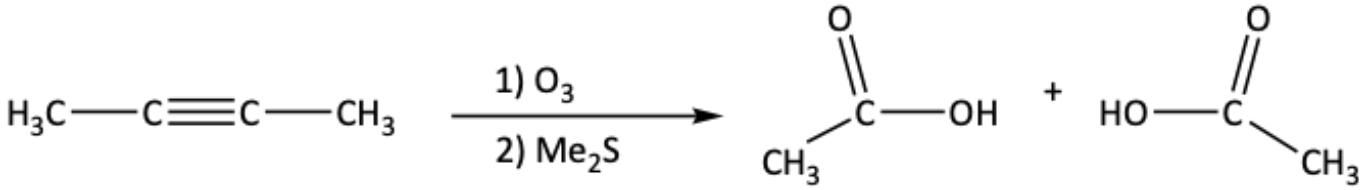
f) 
H3C—C≡CH
2 Br2
Br
Br
H3C—C—CH
Br
Br

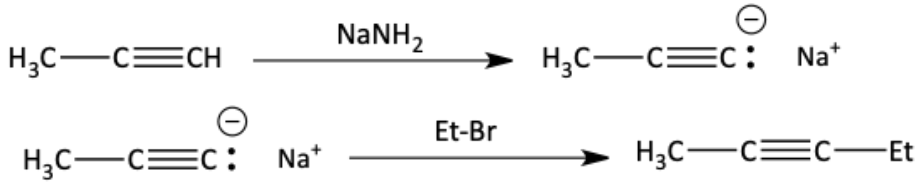
g) 
H3C—C≡C—CH3
H2
Lindlar catalyst
H3C
CH3
C=C
H
H

h) 
H3C—C≡C—CH3
Na, NH3
H3C
H
C=C
H
CH3

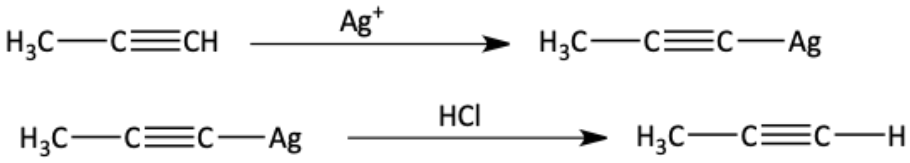
i) 
H3C—C≡C—CH3
KMnO4, OH-
warm, conc.
O
C—OH
CH3
+
HO—C
O
CH3

j) 
H3C—C≡C—CH3
KMnO4, H2O
neutral
O
O
C—C
CH3
CH3

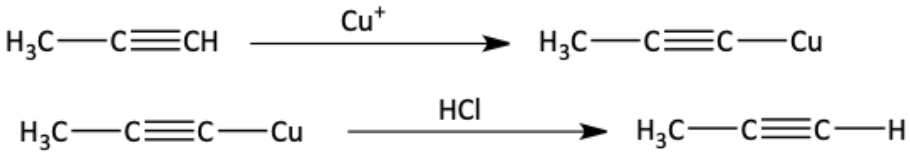
k) 
H3C—C≡C—CH3
1) O3
2) Me2S
O
C—OH
CH3
+
HO—C
O
CH3

l) 
H3C—C≡CH
NaNH2
H3C—C≡C:
⊖
Na+
H3C—C≡C:
⊖
Na+
Et-Br
H3C—C≡C—Et

m)


H3C—C≡CH
Ag+
H3C—C≡C—Ag
H3C—C≡C—Ag
HCl
H3C—C≡C—H

n)


H3C—C≡CH
Cu+
H3C—C≡C—Cu
H3C—C≡C—Cu
HCl
H3C—C≡C—H