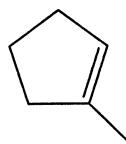


## Additional Chapter 13: "Alicyclics" Worksheet

Give the structure of the chief organic product(s) expected from the reaction of methylcyclopentene.



$\text{H}_2/\text{Pt}$

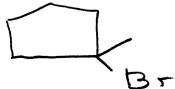


$\text{Br}_2/\text{CCl}_4$



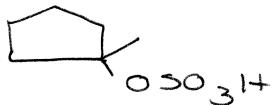
"Anti"

$\text{HBr}$



"Mark"

$\text{H}_2\text{SO}_4$



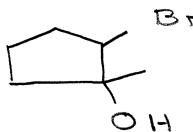
"Mark"

$\text{H}_2\text{O}, \text{H}^+$



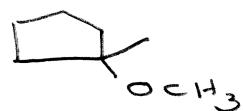
"Mark"

$\text{Br}_2(\text{aq})$



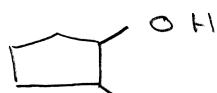
"Br" as electrophile

$\text{CH}_3\text{OH}, \text{Hg(OAc)}_2$ ; Then  $\text{NaBH}_4$



"Mark"

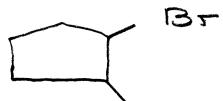
$(\text{BH}_3)_2$ ; Then  $\text{H}_2\text{O}_2, \text{NaOH}$



"Anti-Mark"

instead  
of  $\text{H}_2\text{O} \dots$

HBr, Peroxides



"Anti-Mark"

CH<sub>2</sub>CO, hν



H<sub>2</sub>O, Hg(OAc)<sub>2</sub>; Then NaBH<sub>4</sub>



"Mark"

CH<sub>2</sub>N<sub>2</sub>, hν



KMnO<sub>4</sub>



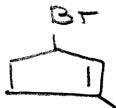
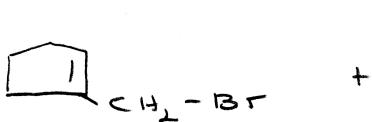
"Syn"

HCO<sub>3</sub>H



"Anti"

Br<sub>2</sub>/Δ

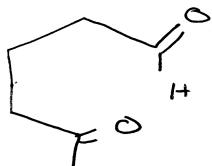


"Anti-Mark"

PBA



O<sub>3</sub>; Then H<sub>2</sub>O, Zn



KMnO<sub>4</sub>, Δ

