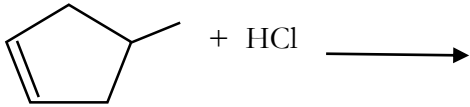


Name: _____ Block: ____ Date: _____

Organic Chemistry: Reactions Worksheet

For the following reactants:

1. Predict the products of the reaction. 2. Include any required catalysts. 3. Indicate the type of reaction.

Reaction
$\text{H}_3\text{CCH}=\text{CHCH}=\text{CHCH}_2\underset{\text{CH}_3}{\text{CH}}\text{CH}_3 + \text{HCl} \longrightarrow$
Hint: partial
Type:
$\text{H}_3\text{CCH}=\text{CHCH}_2\text{CH}_3 + \text{H}_2\text{O} \longrightarrow$
Type:
$\text{H}_3\text{CCH}=\text{CHCH}=\text{CH}_2 + \text{H}_2 \longrightarrow$
Hint: full
Type:
$\text{H}_3\text{CCH}_2\text{CH}_2\text{CH}_3 + \text{Cl}_2 \longrightarrow$
Type:
$\text{H}_3\text{CCH}_2\text{CH}_2\text{CH}_2\text{CH}_3 + \text{O}_2 (\text{g}) \longrightarrow$
Type:
 $+ \text{HCl} \longrightarrow$
Type:

Create the reactions necessary to form the following products:

Product: bromocyclopentane

Product: 1-Iodo-3-ethyl-heptane

Product: 3-bromo hexane (from alkane)

Product: 3-bromo hexane (from alkene)

Show all of the steps for the hydration of 3-octene. Label oxonium ion and carbocation.