### 14A. Predict the relative stability of radicals.

### 14A.1 Circle the most stable radical in each set.

a)

b)

c)

# 14B. Predict the major product of the radical halogenation of alkanes and allylic halogenation of alkenes.

## 14B.1 Predict the major product(s) of the following radical halogenations.

a)

$$\bigcirc$$
  $Cl_2, \Delta$ 

f)

b)

$$Br_2, hv$$

g)

$$Br_2, \Delta$$

c)

 $Br_2, \Delta$ 

h)

e)

d)

$$Cl_2, \Delta$$

i)

14B.2 Predict the major product(s) of the following allylic radical halogenations.

a)  $Br_2, hv$ 

b) NBS, Δ

 $Br_2, \Delta$ 

d)  $Br_2, \Delta$ 

e) <u>Br<sub>2</sub>, hv</u>

f) NBS, Δ

## 14C. Predict the structure of a polymer given a monomer.

14C.1 Predict the structure of the polymer formed from the following monomers in the presence of ROOR and heat.

a)

CI CI

c) OCH<sub>3</sub> l) ⁄⁄CI

e)

f) NH<sub>2</sub>

14C.2 What monomer was used to form the following polymers?

a)

b) \_\_\_\_\_\_

d) ...-
$$CBr_2$$
-  $CBr_2$ -  $CBr_2$ -  $CBr_2$ -  $CBr_2$ -  $CBr_2$ -...

e)

f)