3. (28 pts) Predict the major product(s) expected for each of the following reactions. Remember to indicate stereochemistry, when appropriate. Unless otherwise noted, **you may assume that each reagent is available in excess**. If no reaction is expected, write NR.

a) HO
$$CH_3$$
 CH_3 H_2SO_4

d)
$$CI$$
 $1) Mg$ $2) CH_3OH$

cH₃-C-Br
$$CH_3$$
 CH_3 CH_3 CH_3

f)
$$OsO_4$$

$$^{\mathrm{g})}$$
 \longrightarrow $^{\mathrm{CH_3OH}}$ \longrightarrow $^{\mathrm{H_2SO_4}}$