8. (22 pts) Predict the major product(s) expected for each of the following reactions. You may assume **each reagent is available in excess**, unless otherwise noted. Remember to indicate stereochemistry, when appropriate. If no reaction is expected, write N.R.

8a)

$$\xrightarrow[\text{CH}_3\text{CN}]{\text{NaCN}}$$

8b)

$$\xrightarrow{\text{Br}_2,\ \text{H}_2\text{O}}$$

8c)   CH₃CHCH₂CH₃
         |
         CH₃

$$\xrightarrow[\text{h}\nu]{\text{Br}_2}$$

8d)   Ph−C≡C−H

$$\xrightarrow[\text{2) PhCH}_2\text{Cl}]{\text{1) NaNH}_2,\ \text{NH}_3}$$

8e)

H₂
Lindlar's cat.

RCO₃H