1. For each pair below which reaction would be expected to be the faster?

(a) \[ \text{Br} \xrightarrow{\text{Nal}} \text{I} \] 1-butanol (an alcohol solvent)

(b) \[ \text{SO}_2 \xrightarrow{\text{Nal}} \text{I} \] acetone

(c) \[ \text{CH}_3 \xrightarrow{\text{Nal}} \text{I} \] acetone

(d) \[ \text{OH} \xrightarrow{\text{OH}^-} \text{OH} \quad + \text{Br}^- \] H$_2$O

2. Fill in the missing structures or reagents/conditions in the boxes:

\[ \text{OH} \]