Problem Set 2
Acid-Base Reactions

Put in the lone pairs and circle the acid in each reaction. Draw the products and electron-pushing arrows.

Group 5

1. \( \ce{O} \) + \( \ce{HO-S=O} \)

2. \( \ce{CH3-C=H} \) + \( \ce{N-} \)

Group 6

3. \( \ce{Cl-Al-Cl} \) + \( \ce{O} \)

4. \( \ce{CH3-C=O} \) + \( \ce{CH3CH2O^-} \)

Group 7

5. \( \ce{H-C≡C^-} \) + \( \ce{H-O=H} \)

6. \( \ce{H-C≡N} \) + \( \ce{OH^-} \)

7. \( \ce{CH3-C=CH3} \) + \( \ce{H-N=H} \)

Group 8

8. \( \ce{N} \) + \( \ce{H-Br} \)

9. \( \ce{CH3-Li} \) + \( \ce{O-H} \)

10. \( \ce{O-+O} \) + \( \ce{CH3-O=H} \)