

1. Indicate which of each of the following pairs of acids would be stronger, and explain why.

a. H_2S vs. H_2Se

b. HF vs. HBr

c. H_2Se vs. HBr

d. Co^{3+} in water vs. Rh^{3+} in water

e. H_2SO_4 vs. H_2SO_3

f. $\text{C}_6\text{H}_5\text{OH}$ (phenol) vs. $\text{NO}_2\text{C}_6\text{H}_4\text{OH}$
(2-nitrophenol)

2. Do Problem 6-23 at the end of chapter 6, parts a-c only (although you're welcome to give d. a try if you've read the whole chapter.)

3. Using hard-soft concepts, which of the following reactions are predicted to have an equilibrium constant greater than 1 (reaction favors products)?

