

### Problem 7.19

HCP metals, according to Table 7.1 on page 168 of the text, contain either  $\frac{1}{2}$  or even  $\frac{1}{4}$  as many possible slip systems as BCC or FCC metals because of the nature of the crystalline structure. The difference in the number of potential avenues for slip accounts for the lessened ductility in HCP metals.