

6.47 This problem calls for estimations of Brinell and Rockwell hardnesses.

(a) For the brass specimen, the stress-strain behavior for which is shown in Figure 6.12, the tensile strength is 450 MPa (65,000 psi). From Figure 6.19, the hardness for brass corresponding to this tensile strength is about 125 HB or 70 HRB.

(b) The steel alloy (Figure 6.21) has a tensile strength of about 1970 MPa (285,000 psi) [Problem 6.24(d)]. This corresponds to a hardness of about 560 HB or ~55 HRC from the line (extended) for steels in Figure 6.19.