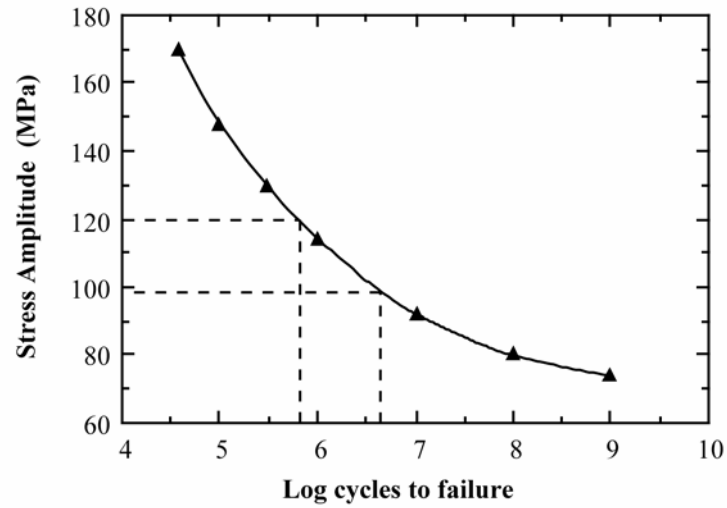8.18 (a) The fatigue data for this alloy are plotted below.

(b) As indicated by one set of dashed lines on the plot, the fatigue strength at 4×10^6 cycles [log (4×10^6) = 6.6] is about 100 MPa.

(c) As noted by the other set of dashed lines, the fatigue life for 120 MPa is about 6×10^5 cycles (i.e., the log of the lifetime is about 5.8).