1) What are the safety factors in stress and life for a part made from AISI 1045 steel that is designed to be subjected to cyclic stress from -150 MPa to 150 MPA for 1500 times? AISI 1045 steel has fatigue constants A = 881 MPa and B = -0.0916.

2) Dowling, Problem 9.42. Estimate number of repetitions necessary to cause fatigue failure using (a) SWT equation, (b) Morrow equation, and (c) Walker equation with γ = 0.65.