

Problem Set 1 - due at the end of class - 9/25/03

From S. Suresh, **Fatigue of Materials**, page 328

- 1: Problem 9.1
- 2: Problem 9.2
- 3: Problem 9.4
- 4: Problem 9.5

Question 5: In class, we discussed the approach to deriving the stresses, strains, and displacements for a linear elastic crack subjected to Mode III loading. Derive the spatial distribution of stresses and displacements for the Mode III crack. Compare your results with Equations 9.49 and 9.50.