CHAPTER 10: Elastostatics

Reading:
Chapter 10 of Blandford and Thorne

TA:
This problem set will probably be graded by Xinkai Wu.

Problems

NOTE: If any problem is trivial for you, do not do it. Simply state that it is trivial and pick some other problem to do instead, or make up your own problem related to the chapter.

A. Exercise 10.3 Order of Magnitude Estimates
B. Exercise 10.7 Evaluation of Divergence of Stress Tensor. Note: This is intended to give you a bit of experience with connection coefficients. It is not intended to be an exercise in algebraic manipulations! If the algebra is unpleasant, do it on a computer, e.g. with Mathematica or Macsyma or Maple.
C. Exercise 10.10 Foucault Pendulm. Note: You will need to read and understand Exercise 10.9 before tackling this problem.
D. Exercise 10.12 Paraboloidal Mirror.