MATH 4250/6250, Problem Set 10
Revised Monday, May 30
Due Friday, April 3

Problems from Oprea:

(3.2.6) Extra credit problem. You may turn in part of the problem for partial extra credit. The signs in the formulas for K^t and H^t are correct. (For a sphere of radius r, we have $K = 1/r^2$ and $H = -1/r$.) However, the proof suggested in the hint and on page 445 is much more complicated than necessary. There is a simpler proof, and if you have an idea I would be glad to discuss it with you.

(3.2.7) This must be proved for a general surface, though you could start by looking at some specific examples.

(3.2.18) Do parts (a) (e) (f). You may do parts (b) (c) (d) for extra credit. Even though K has been computed in the book or in class for some of these surfaces, this problem asks you to do the computation using a parametrization as a ruled surface (as in part (a)).

(3.2.26) Do all four parts. (In an email I said (d) is extra credit, but since I have made (3.2.6) extra credit I have added (d) back as a required problem.)

This problem set has no lab component.