## Homework 10

Due on April 15 in class.

Exercise Set 4 is on Page 35 in the online notes

www.math.purdue.edu/~zhan1966/teaching/362/diffforms.pdf

- 1. Prolem 1(b) in Exercise Set 4 in the notes (do this problem by assuming that the curve C is defined as  $r = \sin \theta, 0 \le \theta \le \pi$ ).
- 2. Prolem 2 in Exercise Set 4 in the notes.
- 3. Prolem 3 in Exercise Set 4 in the notes with S being oriented with outward normal vectors.
- 4. Prolem 4 in Exercise Set 4 in the notes.