

Spring, 2015

MATH 3510(H)
PROBLEM SET #9

T. Shifrin

DUE Wednesday, March 25, 2015.

Problems to work but not hand in:

§8.3: #1, 2, 10c,d, 12.

§8.4: #8, 15b,c, 17, 22.

Problems to turn in:

WeBWork Homework 9A (due Wednesday, March 18, at 11 am)

WeBWork Homework 9B (due Saturday, March 21, at 11 pm)

§8.3: #7 (3), 17a,b (3), 18 (3), 20b (3), 23 (3), 24 (3).

§8.4: #12* (3), 14[†] (2), 20 (2), 23 (3).

Challenge problems (Turn in separately):

§8.3: #25 (5), 26 (5).

§8.4: #25 (3), 26 (2).

*Do not use pullback; rather, use the equation $x^2 + y^2 + z^2 = 1$ to derive a relation among dx , dy , and dz as 1-forms on S .

[†]Of course you are expected to use a surface integral this time!