Spring, 2015

MATH 3510(H)
PROBLEM SET #8

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DUE Wednesday, March 4, 2015.

Problems to work but not hand in:

§8.2: #6, 7, 11b,e.

Problems to turn in:

WeBWork Homework 8

§8.2: #9 (3), 10 (3), 14 (3), 15* (3), 16 (3).

Challenge problems (Turn in separately):

§8.2: #18 (4), 19 (4), 20 (3).

*Start by writing $\omega_i = \sum_{j=1}^{n} a_{ij}\,dx_j$ for some scalars a_{ij}. Now you want to show that $a_{ij} = 0$ when $j > k$ and $a_{ij} = a_{ji}$ for $1 \le i, j \le k$. You will want to use what you know a basis for $\Lambda^2(\mathbb{R}^n)^*$ to be.