

(This is the coversheet for the homework. The problems refer to Anton and Rorres 10th ed. of *Elementary Linear Algebra: applications version*. See Problem Sets 1, 2 or 3 for further formatting.)

**Problem 84** § 5.1 #2 (check that it's an e-vector)

**Problem 85** § 5.1 #6a,c,f (find characteristic equations for  $3 \times 3$  matrices)

**Problem 86** § 5.1 #8a,c,f (find bases for e-spaces of the matrices in previous problem.)

**Problem 87** § 5.1 #12 (find e-values by inspection)

**Problem 88** § 5.1 #14 (on relation of e-value/vectors of  $A$  and  $A^k$ )

**Problem 89** § 5.1 #18 (characteristic equation for  $2 \times 2$  fixed by trace and det)

**Problem 90** § 5.1 #26 (on e-vector modification tricks)