

(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 56 § 4.1 # 8 (is it a vector space?)

Problem 57 § 4.2 # 2 (is it a vector space?)

Problem 58 § 4.2 # 4 (on function space subspaces)

Problem 59 § 4.2 # 14 (hint: review your trig. identities)

Problem 60 § 4.3 # 4 (hint: convert it to a matrix problem)

Problem 61 § 4.4 # 4 (basis for P_2 ?)

Problem 62 § 4.7 # 4 (solution set, parameters)

Problem 63 § 4.7 # 6 (find basis for null space of A)

Problem 64 § 4.7 # 10 (find basis for row space of A with rows of A)

Problem 65 For the matrices from the previous pair of problems, find a basis for the column space
(use the same a,b,c,d,e labels)

Problem 66 § § 4.7 # 12 (find basis for the span, express linear dependencies)

Problem 67 § 4.7 # 16 (geometry of null space, line, plane, point)

Problem 68 § 4.8 # 2 (rank-nullity theorem)

Problem 69 § 4.8 # 9 (over-determined)

Problem 70 § 4.8 # 10 (full-rank from subdeterminants)

Problem 71 § 4.8 # 14 (uses result of previous problem)