

MATH 435, PRACTICE PROBLEMS

Section 4.2: 3, 4, 5(b,c)

Section 4.3: 1, 2, 4, 5, 6(a-d), 7

Hints for 4.3-2: You may assume that  $E$  has equation  $xy + yz + zx = 0$  and  $A = [1, 0, 0]$ ,  $B = [0, 1, 0]$ ,  $C = [0, 0, 1]$ , and  $D = [d^2 + d, d + 1, -d]$ . (Explain why!) Now find the equations of the relevant lines and the homogeneous coordinates of the relevant points. This method is useful for many problems.

Hints for 4.3-7: You may assume that  $E$  has equation  $xy + yz + zx = 0$  and  $A = [1, 0, 0]$ ,  $B = [0, 1, 0]$ ,  $C = [0, 0, 1]$ . Then find  $D$ ,  $P$ , and  $Q$ .

Do not turn in.