

Due after the first test; of course, this material will not be covered on this exam.

1. – (graded) p. 200 – 3ab (Here and in 3cd, you should use the result in p.200 - 2, which was proved in class.)

2. – (graded) p. 200 – 3cd (See note above.)

3. – (graded) p. 200 – 4abc (There's a typo; it should be $g_2(\mathbf{p})$, with the closed parenthesis.)

4. – (graded) p. 200 – 5.

5. – (graded) p. 208 – 3.

6. – (bonus) p. 200 – 6.

7. – (bonus) p. 215 – 6. (Prove it any way you like. If you expand both sides as polynomials of degree four in the components of the vectors (e.g. $\mathbf{x} = (x_1, x_2, x_3)$), it will be easiest to show them equal by showing that the coefficients of, say x_1 , x_2 and x_3 are the same on both sides.)