Assignment 4

First (or last), do this one: Let $\sigma \in S_n$, and let $\tau_1\ldots\tau_\ell$ be its expression as a product of disjoint cycles. Express $|\sigma|$ in terms of the numbers $n_j = |\tau_j|$. We do know the order of a cycle, right?

Exercises 2.3: 1(b),(f), 3, 9, 10, 11, 13, 21, 23.

Exercises 2.4: 3, 7(d), 9(d), 10, 16(b), 18, 23, 28, 30.

Exercises 2.5: 1, 3.

I think that the following are more challenging, so they are offered to you as “extra credit” problems. On the two point scale, you get only a 2 or a 1.5 (or 0) for them when you present the solution in writing by 5pm Wednesday, Oct 6. Two problems presented per customer:

Exercises 2.3: 17, 22  
Exercises 2.4: 12, 34.