Math 264B Assignment 2 Due Feb. 17, 2017 Remmel

1) Use the Pieri rules described in class to find the Schur function expansions of $h_4(\vec{x})h_3(\vec{x})h_2(\vec{x})$ and $e_4(\vec{x})e_3(\vec{x})e_2(\vec{x})$.

(2) Use the Nurnaghan-Nakayam rule described in class to find the Schur function expansion of $p_4(\vec{x})p_3(\vec{x})p_2(\vec{x})$.

(3) Find the images of the following tableaux under the involution described in Theorem 2.4 in the book.

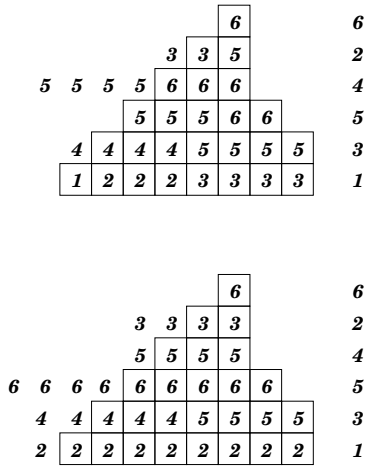

Figure 1: Two tableaux for Theorem 2.4.

Do the following problems in the book. There are hints to each problem at the end of the chapter, but you should write out detailed proofs in each case.

(4) Problem 2.5.

(5) Problem 2.6.

(7) Problem 2.10.

(8) Problem 2.16.