(1) For each of the four infinite families of affine Weyl groups, give a formula for the length of $t_x$ for $x \in T_{L\vee}$ using the explicit descriptions of the coroot lattices from lecture in each case.

(2) Give a direct proof of Bott’s formula (Theorem 4.19) for $\tilde{S}_3$ using Proposition 4.23.

(3) Compute all of the R-polynomials for $S_3$. 