Spring 2018/MA 434   **HW 12: Group actions on trees and semidirect products**

1. Reading:

(1) Read Section 3.10. Portions of this are assigned as presentations. Unless you are the one presenting the result, you need only skim the proofs.
(2) Read (and internalize) Definition 8.2 (semi-direct product) on page 154 and the definition of wreath product on page 156. (It is very important you do this by Thursday.)

2. Homework:

(1) Prove Lemma 3.10.

(2) Shabab should be prepared to present the proof of Prop. 3.52, as well as Example 3.53 on Tuesday, April 10.

(3) Yusheng should be prepared to present the proof of Lemma 3.56, Theorem 3.57, Lemma 3.58, and Corollary 3.59 on Tuesday, April 10..

(4) Claire should be prepared to present the motivation, notation and definitions on pages 120 - 123, as well as the statement and proof of Lemma 6.4 on Tuesday, April 10..

(5) Do problem 15 on page 98.

(6) Do problem 20 on page 98.