

# Math 200a Fall 2016 Homework 1

Due Friday 9/30/2016 by 3pm

## 1 Reading

Begin to review Chapters 0-3 of Dummit and Foote, which we will review very quickly in class. Then begin to read Section 6.3 on free groups and presentations which we will cover next, after which we will go back to chapter 4 and go mostly in order through chapters 4-6.

## 2 Exercises to submit on Friday 9/30

### 2.1 exercises from the text

Section 1.1 #25, 31

Section 2.1 #6

Section 2.4 #14

Section 3.1 #14, 36, 42

Section 3.2 #18, 19

(Hint for 18: you might want to use that if  $N$  is a normal subgroup of  $G$  and  $H$  is any subgroup of  $G$ , then  $HN = \{hn|h \in H, n \in N\}$  is a subgroup of  $G$ .)