

Math 491, Friday, May 1 Problem Session

Fri - Problem Session
Housekeeping

Mon - Exam 4 22/23

Tue - Projects (Oral)

8 - 8:25 Adam

8:25 - 8:50 Hayden

8:50 - 9:15 Riley

~ 20[±] min material
Questions

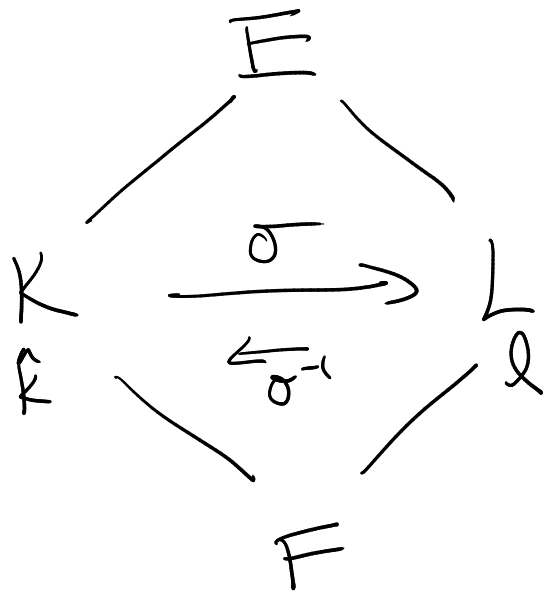
Final EXAM Tuesday, May 12
10 AM Pacific
m of n proofs, $m \leq n$
Two-hour design, three hours

Office Hours By appointment
(Fri / May 8 / 10-12 / 290)

Projects Oral

- Practice timing
- Bullets / Phrases
- Example
- Subset of paper
- Maximum of one proof (one slide)

23.14



$$\sigma \in G(E/F)$$

$$\sigma(K) = \{ \sigma(k) \mid k \in K \}$$

$K \& L$ conjugate $\Leftrightarrow G(E/K) \& G(E/L)$
conjugate groups

$$\rho G(E/K) \rho^{-1} = G(E/L)$$

Proof

$$(\Rightarrow) \tau \in G(E/K)$$

$$\sigma \tau \sigma^{-1} ?$$

$$\sigma \tau \sigma^{-1}(L) = \sigma(\tau(\sigma^{-1}(L)))$$

$$= \sigma(\tau(\hat{K}))$$

$$= \sigma(\hat{K}) = L$$

$\Rightarrow \sigma \tau \sigma^{-1}$ fixes L element wise

$$\Rightarrow \sigma G(E/K) \sigma^{-1} \subseteq G(E/L) \quad (\text{1/2})$$

\geq similarly

(\Leftarrow)

