



MODERN ALGEBRA
SPRING 2023

ASSIGNMENT 15.1
DUE APRIL 28

Exercise 1. Let G be a group which acts on a set S . For $s, t \in S$ define $s \sim t$ if and only if there is a $g \in G$ so that $t = gs$. Prove that \sim is an equivalence relation on S .

Exercise 2. Lang, exercise II.8.1.

Exercise 3. Lang, exercise II.8.2.

Exercise 4. Lang, exercise II.8.4.