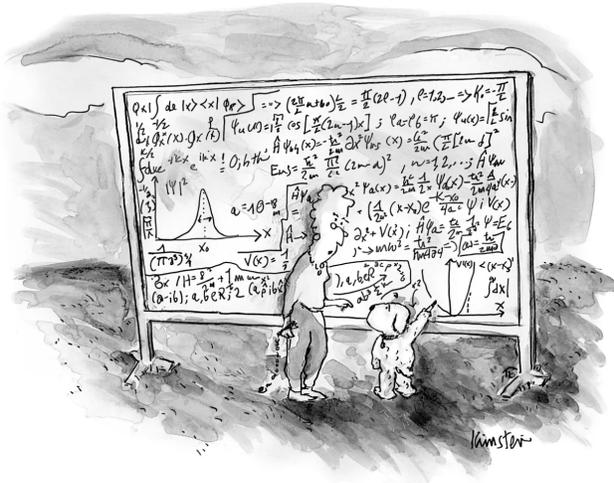


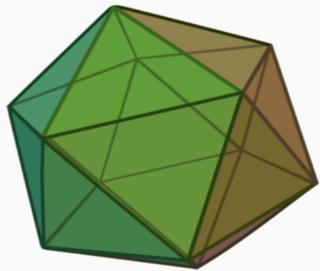
# MAT 563 – Abstract Algebra Fall 2025

Instructor: Gil Moss



"Bad dog! I said 'Sit,' not 'Quantum equations!'"

Isn't it great when you ask for a little and get a lot? That's group theory! So many properties, so little structure. This course is an introduction to the basic theory of groups, with an emphasis on examples. We will dig into groups by realizing them as symmetries of sets (group actions). At the end, we'll add a bit more structure and study rings. These tools will equip you for further study in algebraic disciplines such as representation theory, number theory, and algebraic geometry.



$\rightsquigarrow$

$$\text{Sym} \left( \text{truncated octahedron} \right) \subset GL(\mathbb{R}^3).$$

