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“The wild side of math”: experimenting with group theory.

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Summary: Group theory has traditionally been taught to mathematics majors using the “theorem-proof-example” format. Although this method of presentation is satisfying to a mathematician, many students have difficulty learning the concepts of group theory this way. More than 20 years ago, I transformed my abstract algebra classroom into an active learning environment by using the software package Exploring Small Groups. In this chapter, I describe my approach, illustrating it with a specific example, and discuss its impact on my students, my career and other mathematicians.

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