

1154-A1-1676 **Jill E. Jordan*** (jill.jordan@houghton.edu). *An odd (or even?) inquiry-based approach to quotient groups.*

Many undergraduate algebra texts introduce quotient groups by first defining cosets and normal subgroups, after which quotient groups are presented as a way to use normal subgroups of a known group to produce a “smaller” group. In this talk I will discuss a classroom activity taken from an inquiry-based abstract algebra curriculum in which students use their existing knowledge of odd and even integers to develop an understanding of quotient groups. As students explore ways in which to break up a group into sets that exhibit a group structure similar to that of the sets of odd and even integers, they develop the concepts of cosets and normal subgroups. I will share student responses to the inquiry-based approach as time allows. (Received September 16, 2019)