Math 565 - Spring 2019 Homework 3

Due March 6, 2019

Why are numbers beautiful? Its like asking why is Beethovens Ninth Symphony beautiful. If you dont see why, someone cant tell you. I know numbers are beautiful. If they arent beautiful, nothing is.

— Paul Erdős

Turn in: 3-1.1, 3-1.9, 3-2.3, 3-3.1 (From the textbook) and the following:

(1) Draw an example of a non-monochromatic bracelet with 6 beads, which is identical to a non-trivial rotation of itself. Where does this break the proof shown in class if you tried to apply it to the case p = 6?