

CIS 1600

## Recitation Guide - Week 1

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**Topics Covered:** Multiplication rule, Parity, Sets

**Problem 1:** You own three different rings. You wear all three rings, but no two of the rings are on the same finger, nor are any of them on your thumbs. In how many ways can you wear your rings? (Assume any ring will fit on any finger and you may wear these rings on the fingers of both hands.)

**Problem 2:** Show that for any two integers  $m$  and  $n$ ,  $m^2 + n^2$  has the same parity as  $m + n$ .