1/12/16

A group is an object that tries to describe the symmetry of something

Going to study:

1. Permutation groups

2. Matrix groups

3. Cosets and Legrange's Theorem

4. And other constructs

Review of some discrete math stuff:

1. A function $f : x \rightarrow y$ (where X and Y are sets) is an assignment of an element of Y for each element of X

2. Fact: let $f : x \rightarrow y$ be a function. Then:

   (a) f is invertible $\iff$ f is one to one

Ex)Let x=1, 2, 3,...,n

$\pi(1) = 2$
$\pi(2) = 3$
$\pi(n-1) = n$
$\pi(n) = 1$
A permutation is a one-to-one and onto function from a finite set to itself