§8 - Group Actions

§8.1 - Definitions & Examples

Up to now our study of groups has largely been about understanding the groups themselves

(e.g. How many elements of G have order k?

What are the subgroups of G?

What are the quotients of G?

Is G cyclic? Abelian? etc.)

Now we will turn our attention to studying how a group G can describe the symmetries of other sets X. Essentially, we will see how a group can permute the elements of X.