## 1 The Alternating Groups

## 1.1 Introduction

 $\operatorname{Aut}(A_n) \cong S_n$  for  $n \geq 7$  but for n = 6 there is an exceptional outer automorphism of  $S_6$ .hahahssww subgroup structure (O'Nan-Scott Thm) ddsss hahah

## 1.2 Permutations

This is about PG hhhhh s