

## HONOURS PROJECT

1

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Project Title: Widely supersolvable groups

A group  $G$  is supersolvable if there exists normal subgroups of  $G$ ;

$1 = G_0, G_1, G_2, \dots, G_n = G$  for some positive integer  $n$  such that  $G_i/G_{i-1}$  is a cyclic subgroup for all  $i = 1, \dots, n$ . This type of groups is well understood and many properties are known. Recently, a new generalization of supersolvable groups has been discovered, the so-called *widely supersolvable groups*.

In this project we explore some of the nice properties of widely supersolvable groups. A solid understanding of material in WTW381 is required.