

MTH 301: Group Theory

Homework VIII

Problems for practice

1. Establish the assertions in 6.1 (vi), 6.2 (v), and 6.2 (vi) of the Lesson Plan.
2. Given explicit descriptions of the isomorphisms in 6.2 (vii) - (ix) of the Lesson Plan.
3. Show that for $n \geq 3$, the group of rotational symmetries of an n -pyramid is isomorphic to C_n .
4. Show that for $n \geq 3$, the group of rotational symmetries of an n -prism is isomorphic to D_{2n} .
5. Using 6.3 (viii), establish the assertions in 1.1 (iii) (f).