

MAT 551: Algebra I

Exercise Sheet 4

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Due: Monday, June 6, 2011

Exercise 16 (Version 9): Let

$$G := \left\{ \begin{pmatrix} a & b \\ c & d \end{pmatrix}, ad - bc = 1, a \equiv d \equiv 1 \pmod{4}, b \equiv c \equiv 0 \pmod{4} \right\} < \mathrm{GL}(2, \mathbb{Z}).$$

Find out about the group G as much as you can. You will hand in your written answers on June 6. Further you will give a short (about 5 minute) talk about your findings on June 8 and answer a few questions on them at the blackboard. It is allowed to use a computer algebra system such as **GAP**. (Credits: unspecified, depends on what you do and how you present it.)