

**Math 349: Matrix Groups: Introduction to Lie Groups**  
**Professor Kerr**

**Assignment 4: Topology of matrix groups**

*This assignment is due in class on Wednesday February 27.*

1. Tapp, # 4.2, p. 64.
2. (\*) Tapp, # 4.4, p. 64.
3. Tapp, # 4.16, p. 65. [*Note that this is the key to the proof of Prop. 4.19.*]
4. (\*) Tapp, # 4.8, p. 64. Feel free to consider only  $n \geq 2$  (skip last question).
5. Tapp, # 4.14, p. 65.
6. Tapp, # 4.21 (1), p. 65.
7. Tapp, # 4.21 (2), p. 65.