

HOMEWORK #7, DUE THURSDAY APRIL 11TH

1. Herstein, Chapter 4, §1, 2.
2. Herstein, Chapter 4, §1, 8.
3. Herstein, Chapter 4, §1, 10.
4. Herstein, Chapter 4, §1, 14.
5. Herstein, Chapter 4, §1, 15.
6. Herstein, Chapter 4, §1, 19.
7. Herstein, Chapter 4, §1, 22.
8. Herstein, Chapter 4, §1, 20.
9. Herstein, Chapter 4, §1, 26: Let $H(\mathbb{C})$ be the quaternions over \mathbb{C} , that is, the set of all $\alpha_0 + \alpha_1 i + \alpha_2 j + \alpha_3 k$, where $\alpha_0, \alpha_1, \alpha_2$ and α_3 are elements of \mathbb{C} , and where equality, addition and multiplication are defined as for the real quaternions. Show that $H(\mathbb{C})$ is *not* a division ring.
10. Herstein, Chapter 4, §1, 31.
11. Herstein, Chapter 4, §2, 2.
12. Herstein, Chapter 4, §2, 3.
13. Herstein, Chapter 4, §2, 8.

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