DEPARTMENT OF PHYSICS, APPLIED PHYSICS, AND ASTRONOMY
RENSSELAER POLYTECHNIC INSTITUTE

PHYS-4962 - Homework 1
Due May 29, in class

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Please answer all questions clearly and concisely. Show all the steps that lead to your result. You are strongly encouraged to discuss the homework with your classmates, but you must write up your own solution. If you are using someone else's idea, give them credit. (This will not lower your grade.) Identical homework will not be accepted.

1. N. Linear Algebra Exercises

2. N. I.1. Exercise 3

3. Show that $Z_4 \otimes Z_9$ is isomorphic to Z_{36}

4. N.I.2 Exercise 7

5. N.I.2 Exercise 12

6. Verify that $Z_2 \subset Z_4$, but $Z_2 \not\subset Z_5$