Solutions to Homework 1
for
Math 999: Introduction to Intermediate

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Todo list

This is a set of solutions, created by Clark Zinzow, to Homework 1 for Math 999: Introduction to Intermediate.

Notation:

We use the following non-standard notation:

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Acknowledgments:

Thank you to the following people for helping me, in some way, with these solutions:

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1. Exercise 1

Proof.

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2. Exercise 2

Proof.

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3. Exercise 3

Proof.

□

4. Exercise 4

Proof.

□

5. Exercise 5

Proof.

□

6. Exercise 6

Proof.

□

7. Exercise 7

Proof.

□

8. Exercise 8

Proof.

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9. Exercise 9

Proof.

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10. Exercise 10

Proof.

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11. Exercise 11

Proof.

□

12. Exercise 12

Proof.

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References

[Kn97] Donald E. Knuth, *The Art of Computer Programming: Volume 1 - Fundamental Algorithms*, Addison-Wesley Professional, 3rd Edition, 1997.

[Fol99] Gerald B. Folland, *Real Analysis: Modern Techniques and Their Applications*, Wiley, 2nd Edition, 1999.