HOMEWORK 4

MATH 2001

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ABSTRACT. This is the first homework assignment. The problems are from Hammack [**?**, Ch. 2]:

- **Chapter 2 Section 2.1**, Exercises: 2, 4, 6. **Section 2.2**, Exercises: 2, 6. **Section 2.3**, Exercises: 8, 10. **Section 2.4**, Exercises: 4.

CONTENTS

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CHAPTER 2 SECTION 2.1

Ch.2, §2.1, Exercise 2. Decide whether or not the following are statements. In case of a statment, say if it is true or false, if possible: "Every even integer is a real number."

Solution to Ch.1, §2.1, Exercise 2.

It is a statement.

It is true.

□

Ch.2, §2.1, Exercise 4. Decide whether or not the following are statements. In case of a statment, say if it is true or false, if possible: "Set $\mathbb{Z}$ and set $\mathbb{N}$"

Solution to Ch.1, §1.1, Exercise 8.

It is not a statement.

□

Ch.2, §2.1, Exercise 6.

Solution to Ch.1, §2.1, Exercise 6.

It is a statement.

It is true.

□

Ch.2, §2.2, Exercise 2.

Solution to Ch.2, §2.2, Exercise 2.

$$P : \text{The matrix A is not invertible}$$

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Ch.1, §1.1, Exercise 38.

Solution to Ch.1, §1.1, Exercise 38.   ☐
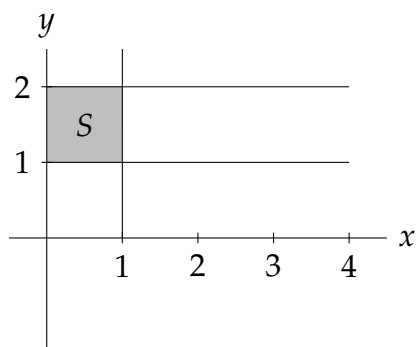
Ch.1, §1.1, Exercise 40. Sketch the following set of points in the x, y-plane:

$$S = \{(x, y) : x \in [0, 1], \ y \in 1, 2]\}$$

Solution to Ch.1, §1.1, Exercise 40. For this problem I first sketched my own solution by hand. However, to implement my solution in LaTeX, I modifed the tikz code from the webpage:

https://tex.stackexchange.com/questions/140312/tikz-shading-region-bounded-by-s

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