Homework 01: MAT 364

Collaboration Policy : You may, in fact are encouraged to, work on the problems with other students. You must write up your solutions by yourself.

Submission: Upload a `.pdf` file using the page for this assignment in Blackboard. You may produce this either (i) electronically, or (ii) by hand, legibly, and then scanned, legibly. It is generally easy to convert a file from some other format, such as .docx, to .pdf.

1. Kinsey 1.1

2. Kinsey 2.1

3. Kinsey 2.11

4. Kinsey 2.13

5. Kinsey 2.14

6. Kinsey 2.18

Optional Challenge Problem: Suppose you start with some subset $A \subset \mathbb{R}^2$, and you are allowed to produce new sets by taking a set that you've already produced and either taking its closure in $\mathbb{R}^2$ or its complement in $\mathbb{R}^2$. Try to choose A so that you get the maximal number of sets via this process.