MATH 350 ASSIGNMENT 1, SPRING 2017

Due in class on Friday, January 20

Part 1. From the textbook *A friendly introduction to number theory*.

- Exercise 1.4. Note that there is no single correct answer to this question.

- Exercises 2.5

- Exercise 3.2

Part 2. Extra credit problems:

- Exercise 2.6

- Exercise 2.8

- Exercise 3.4. The last part of this question asks for a reason that is valid for all equations of the form $y^2 = x^3 + ax + b$ with $a, b \in \mathbb{Q}$, so that whenever you have two solutions (x_1, y_1) and (x_2, y_2) of such a cubic curve, your argument shows that the line through these two points intersects the curve in a third rational point.