MAT223 – Linear Algebra I – Winter 2023

Written Assignment 1

Due Sunday 29 January at 9pm on Crowdmark.

1 Notes and instructions

- This assignment contains five problems, each with more than one part. Note that the grading scheme for each problem is given below the problem!
- You should get an email with a personalized submission link from Crowdmark several days before it's due. Until you receive that link, there's nothing you need to do on Crowdmark. **Late assignments will receive a grade of 0.**
- Organize your solutions neatly and write clearly/legibly. If we can't read your submission, then it won't get any points.
- Explain your solutions to each problem clearly. Your goal with this and any other assignment is to communicate your answers and your reasoning for why they are correct as clearly as possible to the reader.

2 Problems

1. Consider the system of equations with the following augmented matrix, in which a and b are real numbers.

$$\left[\begin{array}{ccccc|c} 1 & 0 & 2 & a^2 & 3 & b \\ 0 & a & b & 0 & 1 & a \end{array}\right]$$