# Lab 1 Example

## 1 Student Information

- 1. Bo Sullivan
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### 2 Natural Numbers

The set of natural numbers is defined to be:

$$N = \{1, 2, 3, \ldots\}. \tag{1}$$

### 3 Subscripts and Superscripts

Let X be a 10 x 10 matrix.

#### 3.1 Subscripts

 $X_i$  denotes the *i*th column of X, while  $X_{ij}$  denotes the (i,j)th entry.

#### 3.2 Superscripts

 $X^T$  means X transposed.  $X_i^T$  is the  $i{\rm th}$  column of  $X^T;$  in other words, the  $i{\rm th}$  row of X.

### 4 Equation Fun

 $\bullet$  Here's the  $quadratic\ equation,$  for no particular reason:

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} \tag{2}$$

• Here's **Euler's identity**, for no particular reason:

$$e^{i\pi} + 1 = 0. (3)$$