**AGRO-932 Spring 2020**

**HW3 (100 points):**

**Due Date: April. 16th, 2020 at 9 AM**

1. Establish a version-controlled directory system to host the homework3.
2. Place the following system of equations in matrix form and solve it using R.

5 X1 + 6 X2 = 3

3 X1 - 4 X2 = -6

1. Using the Loblolly pine data as shown in the lab13, choose the phenotype of “root number data at age 10” (i.e., DATA\_rootnum\_age10\_rootnum.csv) and then conduct genomic selection using both GBLUP and RR-BLUP methods with 10-fold cross-validation.
2. Visualize the prediction accuracy results using the box plot or violin plot.