
Submit written solutions to the following problems. The solutions should explicitly provide all the row-reduction steps.

Use Gauss-Jordan Reduction to solve the following system of linear equations:

1. $2x + 3y = 1$
 $2y + 3x = -1.$

2. $2x + 3y + z = 11$
 $3x + 2y - z = 4$
 $2x - y + 3z = -9.$

3. $2x + 6y = 4$
 $3x + 9y = 5.$

4. $2x + 3y + z = 11$
 $3x + 2y - z = 4$
 $4x + 6y + 2z = 22.$