

Name: _____

Aim: Practice with Gauss-Jordan Elimination for 2×2 Systems

I. Do Now:

1. Solve the system of equations for x and y using the elimination method.

$$8x + y = -16$$

$$-3x + y = -5$$

2. Solve the system of equations for x and y using Gauss-Jordan elimination.

$$8x + y = -16$$

$$-3x + y = -5$$

II. Complete examples 3, 4, and 5 on Lesson 1 handout.

III. More Practice. Solve using Gauss-Jordan elimination. Use a separate sheet, if necessary.

3.
$$\begin{aligned} -4x + 9y &= 9 \\ x - 3y &= -6 \end{aligned}$$

4.
$$\begin{aligned} 5x + y &= 9 \\ 10x - 7y &= -18 \end{aligned}$$

5.
$$\begin{aligned} -3x + 7y &= -16 \\ -9x + 5y &= 16 \end{aligned}$$

6.
$$\begin{aligned} 5x + 4y &= -14 \\ 3x + 6y &= 6 \end{aligned}$$

7.
$$\begin{aligned} 8x + 14y &= 4 \\ -6x - 7y &= -10 \end{aligned}$$

8.
$$\begin{aligned} 3x - 2y &= 2 \\ 5x - 5y &= 10 \end{aligned}$$

9.
$$\begin{aligned} -14 &= -20y - 7x \\ 10y + 4 &= 2x \end{aligned}$$

10.
$$\begin{aligned} 3 + 2x - y &= 0 \\ -3 - 7y &= 10x \end{aligned}$$