

This Worksheet will **not** be collected. We will discuss these problems during Friday's lecture.

1.1. Introduction to Systems of Linear Equations

1. Find all solutions to the following system of linear equations. That is, find all values of x, y, z that satisfies all of the equations below:

$$\begin{aligned}x - y - z &= 1 \\2x - 3y - z &= 3 \\-x + y - z &= -3\end{aligned}$$

2. Do the same for the following system:

$$\begin{aligned}x - y + z &= 1 \\2x - 2y - z &= 3 \\-x + y - z &= -3\end{aligned}$$

3. Do the same for one more system:

$$\begin{aligned}x - y - z &= 1 \\2x - 2y - z &= 3 \\-x + y - z &= -3\end{aligned}$$