

6. (15 points) Solve by Gauss-Jordan elimination the following system:

$$x + y + z = 1$$

$$2x + y - 3z = 4$$

$$5x + 4y = 7$$

Solve by Gauss-Jordan elimination the following system:

$$3x + 2y - 5z = 4$$

$$x - y - 3z = 3$$

$$4x + y - 8z = 11$$

Answer: No solution (the system is inconsistent)

Solve the following system of linear equations by Gauss-Jordan elimination method.

$$\begin{aligned}2x_1 - 5x_2 - 3x_3 &= 7 \\-4x_1 + 10x_2 + 2x_3 &= 6 \\6x_1 - 15x_2 - x_3 &= -19\end{aligned}$$