Please show **all** your work! Answers without supporting work will not be given credit.
Write answers in spaces provided. You have 15 minus to complete this exam.

Name:

1. (8 pts) Solve the following linear system using row reduction:

$$
\begin{aligned}
x + 3y - z &= 1 \\
3x + 4y - 4z &= 7 \\
3x + 6y + 2z &= -3
\end{aligned}
$$

2. (8 pts) Find the reduced Echlon form of the following system:

$$
\begin{aligned}
x + y - 3z &= -5 \\
-5x - 2y + 3z &= 7 \\
3x + y - z &= -3
\end{aligned}
$$