## MATH 21B, JANUARY 26: INTRODUCTION TO SYSTEMS OF LINEAR EQUATIONS

(1) Solve the following systems using the method of elimination:

$$
\begin{aligned}
& \left|\begin{array}{rl}
-y+2 z & =2 \\
x+4 y-2 z & =5 \\
3 x+2 y+5 z & =7
\end{array}\right| \\
& \left|\begin{array}{rl}
2 x+4 y-2 z & =-10 \\
3 x+6 y & =-12
\end{array}\right|
\end{aligned}
$$

$$
\left|\begin{array}{r}
x+y=2 \\
2 x-y=1 \\
-x+y=1
\end{array}\right|
$$

$$
\left|\begin{array}{l}
x+2 y=3 \\
x+2 y=7
\end{array}\right|
$$

(2) For which values of $k$ is the following system inconsistent? One solution? More than one solution?

$$
\left|\begin{array}{r}
2 x+2 y+k z=3 \\
k x+k y+8 z=k+2
\end{array}\right|
$$

