# Week 9 - Linear Algebra

1. **TICKABLE** Use Sage to solve the following system of equations:



1. **TICKABLE** Note that the above system of equations is equivalent to the following systems of equations:

* In essense the only thing that defines the system of equations is the cofficients:
* We can of course seperate the right hand side of our equation and perhaps include those elements in a vector:

1. Matrix multiplication.
2. Matrix inversion
3. Enter the following matrices in to a list. Invert all of them.
4. Plotting something?
5. Solve a large number of systems of linear equations
6. Reading in data for a big system of linear equations
7. Creating a big linear system.