Math 129a, paragraph homework 02
Numbers of solutions of systems of linear equations
Due: Mon Feb 04

1. If possible, give an example of a system of 5 linear equations in 3 variables that has **no** solutions, and explain how you know that the system has no solutions. If this is not possible, explain why not.

2. If possible, give an example of a system of 5 linear equations in 3 variables that has **exactly one** solution, and explain how you know that the system has exactly one solution. If this is not possible, explain why not.

3. If possible, give an example of a system of 5 linear equations in 3 variables that has **infinitely many** solutions, and explain how you know that the system has infinitely many solutions. If this is not possible, explain why not.

4. If possible, give an example of a system of 3 linear equations in 5 variables that has **no** solutions, and explain how you know that the system has no solutions. If this is not possible, explain why not.

5. If possible, give an example of a system of 3 linear equations in 5 variables that has **exactly one** solution, and explain how you know that the system has exactly one solution. If this is not possible, explain why not.

6. If possible, give an example of a system of 3 linear equations in 5 variables that has **infinitely many** solutions, and explain how you know that the system has infinitely many solutions. If this is not possible, explain why not.