**T02**

1. Write the general solution of the following systems which are described as augmented matrices
   1. b.

c. d.

1. Solve the following system, giving the solution set in vector notation. Identify the particular solution and the solution of the homogeneous system.
2. Consider the following system:
   1. Is a solution of this system? Can we write a solution set of this system using as a particular solution? Justify your answer
   2. Write a general solution of this system using as a particular solution.

**T03**

1. Does lie on the line through and? Justify your answer.
2. Describe the plane through, and.
3. Calculate the result of the intersection between }   
   and }
4. Write a set of all vectors that are perpendicular to in a parametric form.
5. The geometric mean of two positive reals is. It is analogous to the arithmetic mean. Use the Cauchy-Schwartz inequality to show that the geometric mean of any is less than or equal to the arithmetic mean. (Hint. You should construct two vectors, says and , whose values are related to and such that using Cauchy-Schwartz inequality gives the result as .)
6. Find two distinct row echelon form versions of this matrix
7. What results from applying Gauss-Jordan reduction to a nonsingular matrix?