

Quizz

02/01/2013

The test lasts 15 minutes. No documents are allowed. The use of a calculator, cell phone or other equivalent electronic device is not allowed.

- (1) Solve the following linear system by Gaussian elimination:

$$\begin{pmatrix} 2 & -1 & 0 & 0 \\ -1 & 2 & -1 & 0 \\ 0 & -1 & 2 & -1 \\ 0 & 0 & -1 & 2 \end{pmatrix} \begin{pmatrix} x_1 \\ x_2 \\ x_3 \\ x_4 \end{pmatrix} = \begin{pmatrix} 1 \\ 1 \\ 1 \\ 1 \end{pmatrix}.$$

Detail each step by specifying the operations you are doing on the rows.