HAND IN MODULE 3

MARIUS HAAKONSEN, OLE K LARSEN

1. Task 1:

a)

S = standard basis $\begin{pmatrix}1\\0\end{pmatrix}, \begin{pmatrix}0\\1\end{pmatrix} for \mathbb{R}^2$

B = the two vectors $\begin{pmatrix}1\\-1\end{pmatrix}, \begin{pmatrix}1\\0\end{pmatrix}$

Gaussian Elimination: $\begin{pmatrix}1 & 1 & 0\\-1 & 0 & 0\end{pmatrix} -> \begin{pmatrix}1 & 1 & 0\\0 & 1 & 0\end{pmatrix} -> \underline{\underline{\begin{pmatrix}1 & 0 & 0\\0 & 1 & 0\end{pmatrix}}}$

From the Gaussian Elimination we can see that it is linear independent and has unique solution.