Quiz 5

1. Find the LU-decomposition of the matrix A.   (10 pts.)

$$A = \begin{bmatrix} 3 & -2 & 2 \\ 6 & -9 & 2 \\ -3 & 7 & 0 \end{bmatrix}$$

2. Find the standard matrix of T^{-1} if $T : \mathbb{R}^2 \to \mathbb{R}^2$ is the linear transformation which rotates vectors in $\mathbb{R}^2$ by $90°$ **counter-clockwise** and then scales the x-value of the resulting vector by a factor of 2.   (10 pts.)