Name: Date: 02/08/2018

M20580 L.A. and D.E. Tutorial

Quiz 3

1. Let $T : \mathbb{R}^2 \to \mathbb{R}^2$ be a linear transformation given by

$$T\left(\begin{bmatrix} x_1 \\ x_2 \end{bmatrix}\right) = \begin{bmatrix} 2018x_2 \\ -x_1 \end{bmatrix},$$

   Find the standard matrix for T, i.e. find a matrix A such that $T(\mathbf{x}) = A\mathbf{x}$.

2. Find the inverse of the matrix

$$B = \begin{bmatrix} 0 & 1 \\ 1 & 0 \end{bmatrix}.$$