

Name: _____

MA242, Quiz #4
Fall 2009

Let $T_A : \mathbb{R}^2 \rightarrow \mathbb{R}^2$ be determined by $T_A \vec{e}_1 = \begin{pmatrix} 1 \\ 4 \end{pmatrix}$, $T_A \vec{e}_2 = \begin{pmatrix} 2 \\ -2 \end{pmatrix}$. Determine $T_A \begin{pmatrix} -3 \\ 2 \end{pmatrix}$.

Ans: $T_A \begin{pmatrix} -3 \\ 2 \end{pmatrix} = \begin{pmatrix} 1 \\ -16 \end{pmatrix}$