Additional Problems Assignment 13

1. Show that any set of vectors in $\mathbb{R}^n$ that contains the zero vector are linearly dependent.

2. In class we started the proof that if $\vec{v}_1, \vec{v}_2, \ldots, \vec{v}_m \in \mathbb{R}^n$ and $W = \text{span}(\vec{v}_1, \vec{v}_2, \ldots, \vec{v}_m)$ then $W \leq \mathbb{R}^n$. Finish the proof by showing that if $\vec{x} \in W$ and $k \in \mathbb{R}$ then $k\vec{x} \in W$.