

WMS Mentoring Warm Up
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10.03.2018

Linear Algebra

1. Define Field.
2. Define Vector Space.
3. Is $(\mathbb{R}^2, +)$ a Vector Space? Why?
4. Define $M := \{x \in \mathbb{R} \mid x \neq 2\}$. Is M a Vector Space? Why?
5. Consider a vector space V . Consider 4 vectors $a, b, c, d \in V$. Define $\text{span} \langle a, b \rangle$. Define $\text{span} \langle a, b, c \rangle$.
Proof $\text{span} \langle a, b \rangle$ is a linear subspace of $\text{span} \langle a, b, c \rangle$.