## 1 | Overview

## 1.1 | Intuition

- If you have a vector list v that is a linear combination of vectors in V, or equivalently,
  - $v=a_1v_1+...+a_mv_m$ where $v_1,...,v_m\in V$
- And those choices of  $a_1,...,a_m$  are unique, then this is a linear independence? ## #definition linearly independent > The empty list () is linearly independent > A list  $v_1,...,v_m$  of vectors in V is called *linearly independent* if the only choice of  $a_1,...,a_m \in F$  that makes  $a_1v_1+...+a_mv_m$  equal 0 is  $a_1=...=a_m=0$
- ^^^ what the heck is that last part about everything equaling 0?? #todo-exr0n KBe20math530floQuestions

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