

Source: [\[KBe20math530refVectorSpace\]](#)

1 | Overview

Intuition

- If you have a vector list v that is a linear combination of vectors in V , or equivalently,

$$v = a_1 v_1 + \dots + a_m v_m \text{ where } v_1, \dots, v_m \in V$$

- And those choices of a_1, \dots, a_m are unique, then this is a linear independence? ## #definition linearly independent > - The empty list $()$ is linearly independent > - A list v_1, \dots, v_m of vectors in V is called **linearly independent** if the only choice of $a_1, \dots, a_m \in F$ that makes $a_1 v_1 + \dots + a_m v_m$ equal 0 is $a_1 = \dots = a_m = 0$
- ^^^ what the heck is that last part about everything equaling 0?? #todo-exr0n [\[KBe20math530floQuestions\]](#)