



Definition

The *span* of a set of vectors $v_1, \dots, v_k \in \mathbf{R}^n$ is the set

$$\text{span}(\{v_1, \dots, v_k\}) = \{\alpha_1 v_1 + \dots + \alpha_k v_k \mid \alpha_i \in \mathbf{R}\},$$

the set of all linear combinations of the vectors v_1, \dots, v_k .

