



Sum Sets

1 Why

TODO

2 Definition

The *sum* of two sets in a vector space is the set of points which can be expressed as the sum one vector from the first set and one vector from the second set.

Sometimes called *Minkowski sum* (true?).

2.1 Notation

Let (V, \mathbf{F}) be a vector space and let $M_1, M_2 \subset V$. Then the sum of M_1 and M_2 is

$$\{x_1 + x_2 \mid x_1 \in M_1, x_2 \in M_2\},$$

which we denote by $M_1 + M_2$.