

**Definition 14.2.** [16W] Given  $x_1, \dots, x_k \in \mathbb{R}^n$ , given  $t_1, \dots, t_k \geq 0$  with  $t_1 + \dots + t_k = 1$ , the sum

$$x_1 t_1 + \dots + x_k t_k$$

is a convex combination of the points  $x_1, \dots, x_k$ .