

Ask me about anything that isn't clear.

card(x) denotes the number of nonzero entries in the vector $x \in \mathbf{R}^n$

suppose we have

$$y = Ax, \quad \text{card}(x) \leq k$$

you know $A \in \mathbf{R}^{m \times n}$, $y \in \mathbf{R}^m$, and k

how would you determine whether there is a **unique** x that satisfies these conditions, and if so, find x ?