⌖ Subspace Orthogonal Complements

1 Why

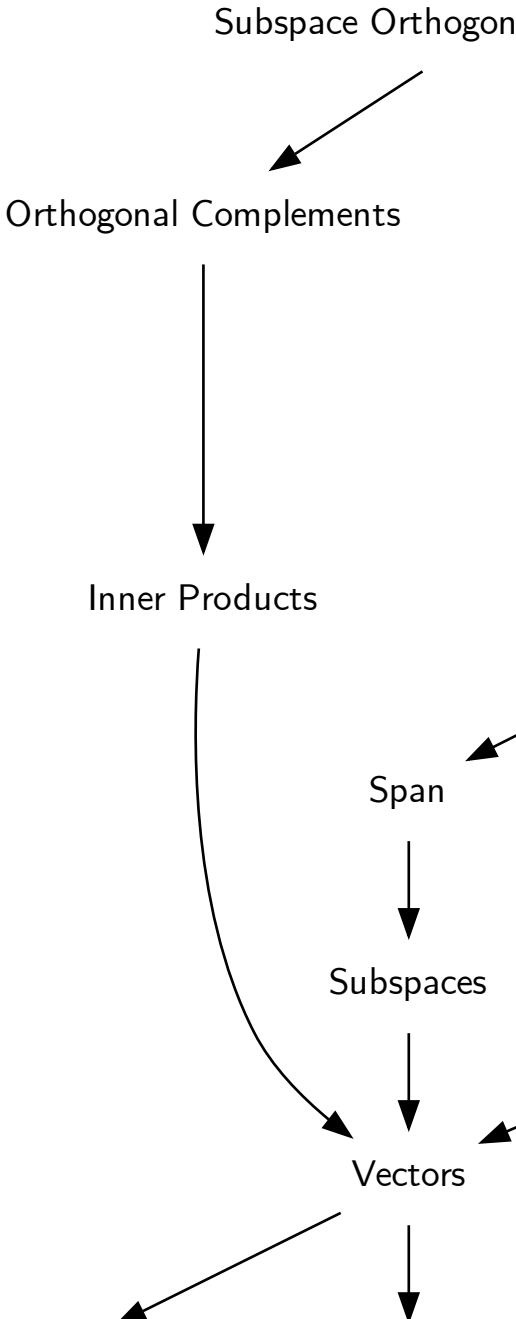
2 Main Result

Proposition 1. *The orthogonal complement of a subspace is a subspace.*

Proposition 2. *Let $L \subset \mathbf{R}^n$ be a subspace. Then*

$$\dim L + \dim L^{\perp} = n.$$

Proposition 3. *Let $b_1, \ldots, b_m$ be a basis for a subspace $L \subset \mathbf{R}^n$. Then $x \perp L$ if and only if $x \perp b_i$ for $i = \{1, 2, \ldots, m\}$.*


Subspace Orthogon
Orthogonal Complements
Inner Products
Span
Subspaces
Vectors