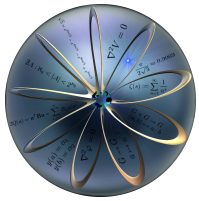

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reflexive non-degenerate sesquilinear

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Defines	Reflexive non-degenerate bilinear
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A non-degenerate sesquilinear form $b : V \times V \to k$ is *reflexive* if for all $v, w \in V$, if $b(v, w) = 0$ then $b(w, v) = 0$. This means

$$v \perp w \text{ if and only if } w \perp v.$$

It is rare to define perpendicularity for sesquilinear/bilinear maps which are not reflexive because it would require a version of left and right perpendicular. Thus a reflexive sesquilinear/bilinear map is usually synonymous with the existence of perpendicularity.