



SPACE INNER PRODUCT

Why

We want to measure angles in space.¹

Definition

The *space inner product* (or *dot product*, *scalar product*) of two real vectors $x, y \in \mathbf{R}^3$ is

$$x_1y_1 + x_2y_2 + x_3y_3$$

Notation

We denote the inner product of x and y by $\langle x, y \rangle$.

¹Future editions will include pictures.

