

$$\mathbb{R}^n \times \mathbb{R}^n \cong \mathbb{R}^{2n}$$

$$= \mathbb{R}^n \times \mathbb{R}^n$$

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$$+ \text{ } \cdot \text{ } \cong \text{ } \leftarrow \text{ } \cong \mathbb{R}^{2n}$$

$$\mathbb{R}^n \times \mathbb{R}^n = \mathbb{R}^{2n}$$

$$\langle \cdot, \cdot \rangle = \langle \cdot, \cdot \rangle$$

$$= \langle \cdot, \cdot \rangle$$

Handwritten orange text:  $\infty \cup \mathbb{N} \cup \mathbb{R} \cup \mathbb{Z} \cup \mathbb{Q}$

Handwritten green text:  $\mathbb{R}$

Handwritten green text:  $\mathbb{Q} \cup \mathbb{Z} \cup \mathbb{N} \cup \mathbb{R} \cup \dots$