

Definition (*n*-ary relation)

An *n*-ary relation on *n* sets $\langle \mathbf{A}_1, \mathbf{A}_2, \dots, \mathbf{A}_n \rangle$ is a subset of the product set

$$\mathbf{A}_1 \times \mathbf{A}_2 \times \cdots \times \mathbf{A}_n.$$