

**Definition** (Equivalence relation). An endorelation  $\mathbf{R} \subseteq \mathbf{A} \times \mathbf{A}$  is an *equivalence relation* if it is symmetric, reflexive, and transitive. We write  $x \sim x'$  if  $\langle x, x' \rangle \in \mathbf{R}$ .