System: a set of two or more objects with a structural relationship (or relationships) mapped over the object set

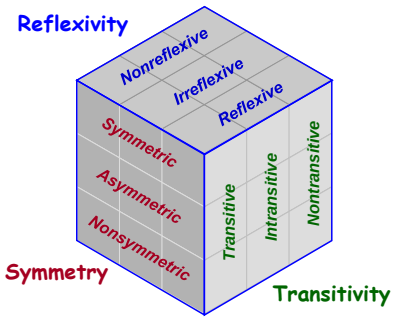
Most basic context:
- **Foundational logic**
- **No ordered objects**

More advanced mathematical context:
- **Ordered number systems exist**
- **Equivalence & partial order used to create ordering patterns**

Real world systems:
- **Empirical data**
- **Structuring unknown or poorly defined systems**

Set **R**elation **ID**	**Specific Set**	**Specific Relation** (mapped on set)
SR01	Any nonempty set	Equivalence
SR02	Any nonempty set	Not equal
SR03	Any set of sets	Subset of
SR04	Any set of sets	Proper subset of
SR05	Real Numbers	Greater than or equal to, Less than or equal to
SR06	Real Numbers	Greater than, Less than
SR07	Positive Integers	Is a divisor of
SR08	Nonzero Integers	Is a divisor of
SR09	Integers	Congruence mod n
SR10	Objects	North of
SR11	Objects	Adjacent to

Relation Logical Properties



\+ Antisymmetric

Abbreviation	Name
Reflex	Reflexive
Irreflex	Irreflexive
Nonreflex	Nonreflexive
Symm	Symmetric
Asymm	Asymmetric
Nonsymm	Nonsymmetric
Trans	Transitive
Intrans	Intransitive
Nontrans	Nontransitive
Antisymm	Antisymmetric

Sets, Relations, & Their Logical Properties

Abbre / Set	Reflex	Ir-reflex	Non-reflex	Symm	A-symm	Non-symm	Trans	In-trans	Non-trans	Anti-symm	
SR01	Yes	No	No	Yes	No	No	Yes	No	No	Yes	P
SR02	No	Yes	No	Yes	No	No	No	Yes	No	No	P
SR03	Yes	Yes	No	Yes	Yes	No	Yes	No	No	Yes	C
SR04	No	Yes	No	No	Yes	No	Yes	No	No	Yes	P
SR05	Yes	Yes	No	Yes	Yes	No	Yes	No	No	Yes	C
SR06	No	Yes	No	No	Yes	No	Yes	No	No	Yes	P
SR07	Yes	?	?	No	?	?	Yes	?	?	Yes	Will not be addressed at this time
SR08	Yes	?	?	No	?	?	Yes	?	?	No?	
SR09	Yes	?	?	Yes	?	?	Yes	?	?	No?	
SR10	No	Yes	No	No	Yes	No	Yes	No	No	Yes	P
SR11	No	Yes	No	Yes	No	No	No	Yes	No	No	P

Where:

Most basic systems

Ordered systems

Empirical, real-world systems

P Primary relation

C Compound relation