

Reflexive, Symmetric, & Transitive Properties

REFLEXIVE: $a \mathbf{R} a$ (for ALL values of a)

Think: Every element must be related to itself

SYMMETRIC: If $a \mathbf{R} b$ then $b \mathbf{R} a$ (for all values of a & b)

Think: If the 1st to the 2nd, then the 2nd to the 1st (in all cases)

TRANSITIVE: If $a \mathbf{R} b$ and $b \mathbf{R} c$ then $a \mathbf{R} c$

*Think: If the 1st to the 2nd and the 2nd to the 3rd, then the 1st to the 3rd
(in all cases)*

RELATION #1

R **S** **T**

RELATION #2

R **S** **T**

RELATION #3

R **S** **T**

RELATION #4

R **S** **T**

The BIGGIE!

R **S** **T**