

Properties Provable from the Axioms

Reflexive Property

If x is a real number, then $x = x$.

Symmetry

If $x = y$, then $y = x$.

Transitivity

For Equality: If $x = y$ and $y = z$, then $x = z$.

For Inequality: If $x < y$ and $y < z$, then $x < z$.

Trichotomy

Exactly one of these statements must be true for any real numbers x and y :

$$y < x, \quad y > x, \quad \text{or} \quad y = x$$

Read through examples 2, 3, and 4 together
as a class (pp. 35-37)

As time permits, work through
exercises 1-10, 11, 17, 24, and 29