Reflexive Property

Examples & Non-Examples

| Example | Example | Non-Example |
|---------|---------|-------------|
| | | |

Definition

Reflexive Property: The reflexive property states that any geometric figure (or number) is congruent or equal to itself.

Key points:

- In algebra: a = a for any real number a.
- In geometry: Any segment is congruent to itself $\overline{AB} \cong \overline{AB}$, and any angle is congruent to itself $\angle A \cong \angle A$.
- Often used in proofs when two triangles share a side or an angle.

Proof Example

| Given | $\overline{DC} \cong \overline{BA}, \ \overline{CB} \ \overline{AD}$ | |
|-------|--|--|
| Prove | $\Delta DCB \cong \Delta BAD$ | |
| A | D | |
| | | |
| B | C | |

| Statements | Reasons |
|--|-----------------------|
| 1. \overline{DC} ≅ \overline{BA} , \overline{CB} ≅ \overline{AD} | 1. Given |
| | 2. Reflexive Property |
| 3. Δ <i>DCB</i> ≅Δ <i>BAD</i> | 3. SSS |

