

Parallelogram Prop.

- opp sides are \cong
- opp sides are \parallel
- opp \angle 's \cong
- consec. \angle 's supp
- diagonals bisect each other

Rectangles Prop.

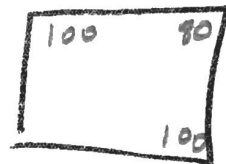
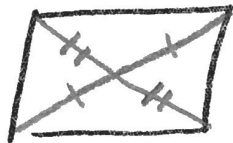
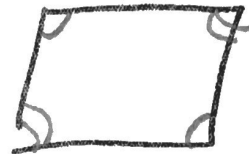
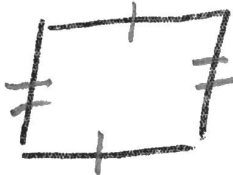
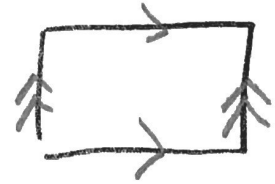
- 4 \cong \angle 's (90°)
- diagonals are \cong



Rhombus Prop.

- 4 \cong sides
- Diagonals are \perp
- Diagonals bisect opp \angle 's

6 ways to Prove



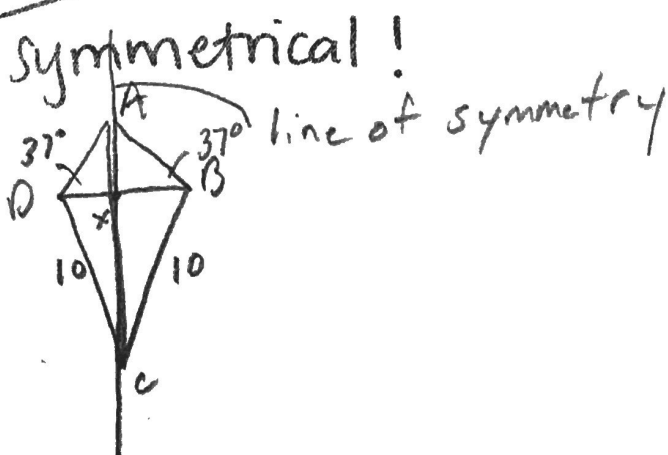
How do you prove Δ 's \cong ?

ASA, SSS, HL, SAS, AAS

How do you prove lines parallel?

- checking slope
- converse of special angle relationships

Kites are Symmetrical!

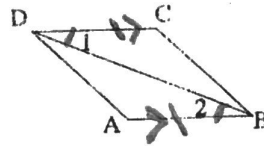


Given: ABCD is a quadrilateral

$$\overline{AB} \cong \overline{CD}$$

$$\angle 1 \cong \angle 2$$

Prove: ABCD is a parallelogram



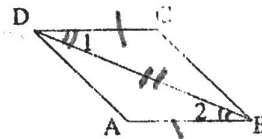
Statements	Reasons
1. ABCD is a quad.	1. Given
2. $\overline{AB} \cong \overline{CD}$	2. Given
3. $\angle 1 \cong \angle 2$	3. Given
4. $\overline{DC} \parallel \overline{AB}$	4. Converse of alt int. \angle 's
5. ABCD is a parallelogram	5. Def. of a \square
6.	6.
7.	7.

Given: ABCD is a quadrilateral

$$\overline{AB} \cong \overline{CD}$$

$$\angle 1 \cong \angle 2$$

Prove: ABCD is a parallelogram



Statements	Reasons
1. ABCD is a quad.	1. Given
2. $\overline{AD} \cong \overline{BC}$	2. Given
3. $\angle 1 \cong \angle 2$	3. Given
4. $\overline{DB} \cong \overline{DB}$	4. reflexive prop
5. $\triangle ABD \cong \triangle CDB$	5. SAS \cong
6. $\overline{DA} \cong \overline{CB}$	6. CPCTC
7. ABCD is a parallelogram	7. Def. of a \square