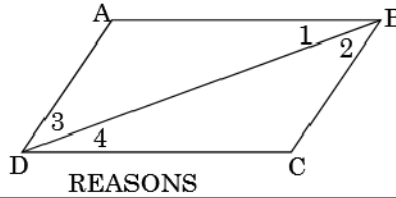


Using your knowledge of congruent triangles, complete the proofs of these theorems.

1. Given: parallelogram ABCD
with diagonal BD

Prove: $\overline{AB} \cong \overline{CD}$ and $\overline{AD} \cong \overline{BC}$

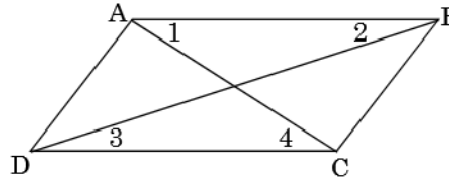


STATEMENTS	REASONS
1.	1. Given
2. $\overline{AB} \parallel \overline{DC}$ and $\overline{AD} \parallel \overline{BC}$	2. Definition of parallelogram
3. $\angle 1 \cong \angle 4$ $\angle _ \cong \angle _$	3.
4.	4. Reflexive Property
5. $\triangle ABD \cong \triangle _$	5.
6.	6.

Conclusion: the opposite sides of a parallelogram are _____

2. Given: parallelogram ABCD
with diagonals BD and AC

Prove: $\overline{AE} \cong \overline{EC}$ and $\overline{DE} \cong \overline{EB}$



STATEMENTS	REASONS
1.	1. Given
2.	2. Definition of parallelogram
3.	3. Opposite sides of a parallelogram are congruent
4. $\angle 1 \cong \angle 4$, $\angle _ \cong \angle _$	4.
5. $\triangle ABE \cong \triangle _$	5.
6.	6.

Conclusion: _____ of a parallelogram bisect each other.