Parallelograms – Part 2

Proving quadrilaterals are parallelograms

Geometry

Chapter 6

A BowerPoint Presentation

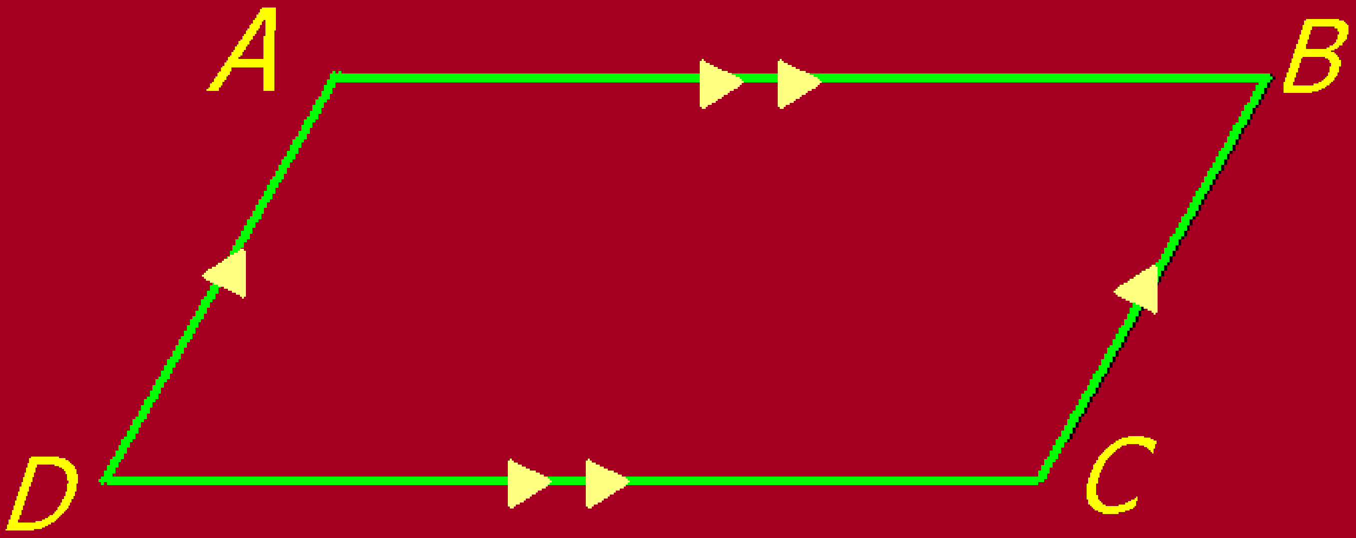
In a quadrilateral, if both pairs of opp sides are $\parallel$, then ▱

(A repeat of the definition of parallelograms)

If $\overline{AB} \parallel \overline{CD}$ and $\overline{AC} \parallel \overline{BD}$

↓

Then *ABCD* is a ▱

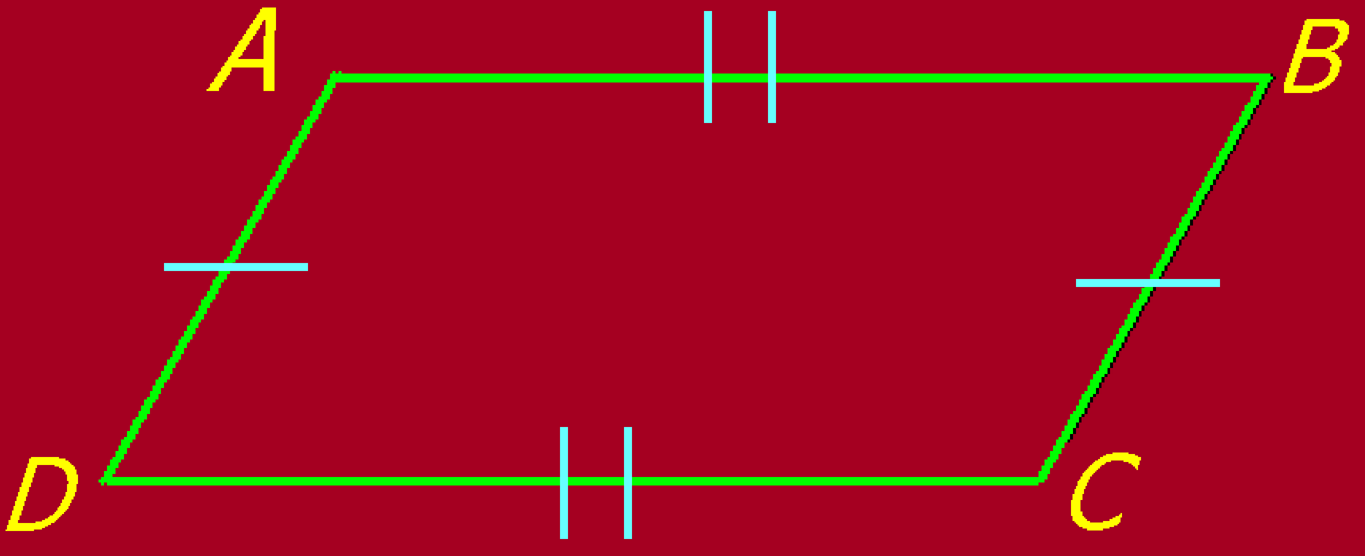


In a quadrilateral, if both pairs of opp sides are $\cong$, then ▱

If $\overline{AB} \cong \overline{CD}$ and $\overline{AD} \cong \overline{BC}$

↓

Then *ABCD* is a ▱

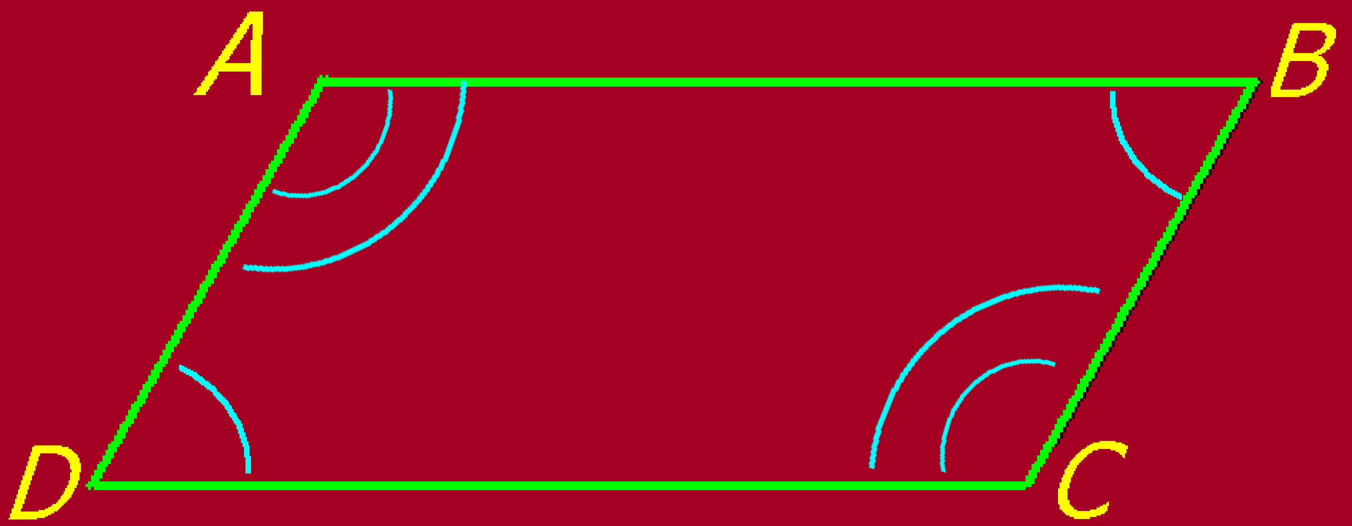


In a quadrilateral, if both pairs of opp $\angle$s are $\cong$, then ▱

If $\angle A \cong \angle C$ and $\angle B \cong \angle D$

↓

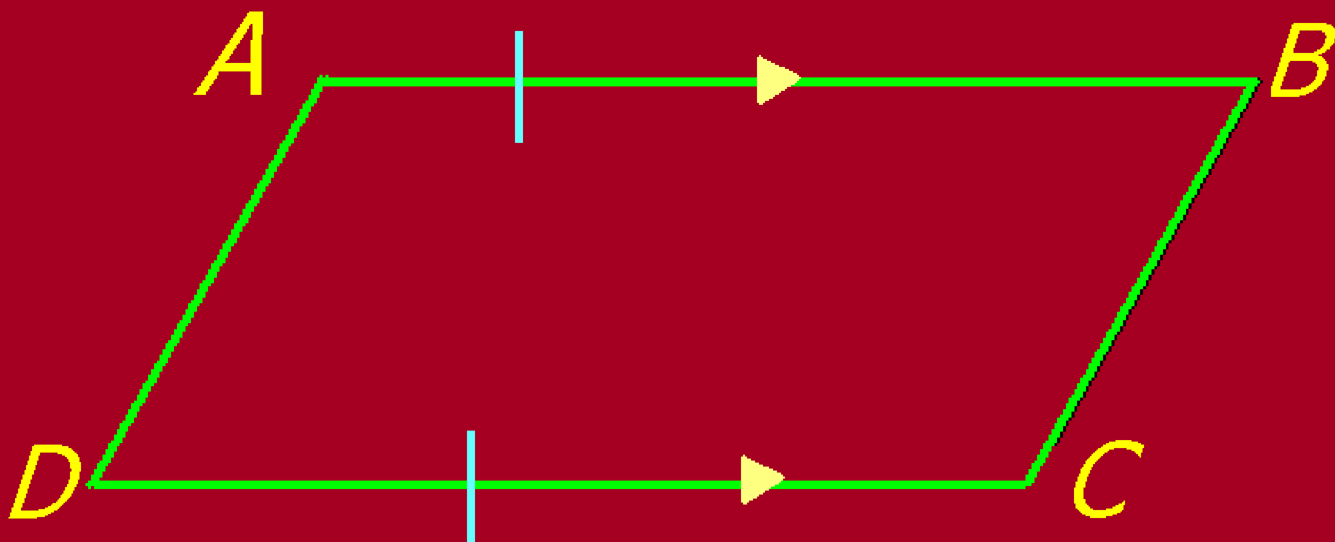
Then *ABCD* is a ▱



In a quadrilateral, if one pair of opp sides are <u>both</u> $\parallel$ & $\cong$, then ▱

If $\overline{AB} \parallel \overline{DC}$ and $\overline{AB} \cong \overline{DC}$

Then *ABCD* is a ▱

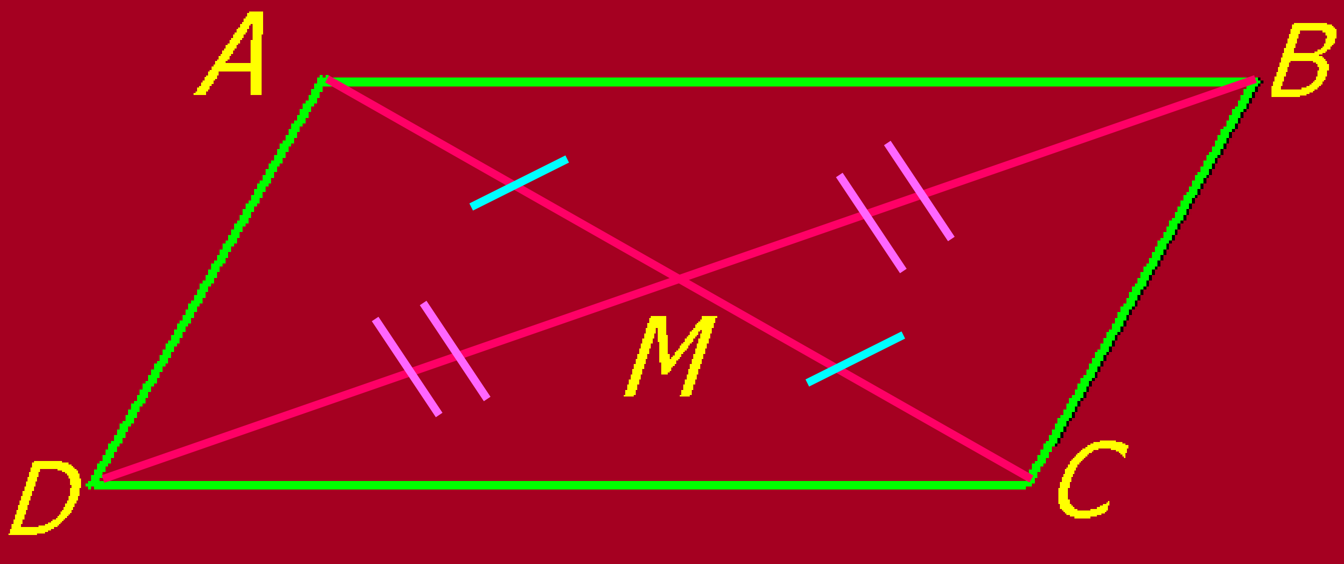


In a quadrilateral, if both diagonals bisect each other, then 

If $\overline{AM} \cong \overline{MC}$ and $\overline{BM} \cong \overline{MD}$

↓

Then *ABCD* is a 



In a quadrilateral, if one $\angle$ is supp to both of its consecutive $\angle$s, then ▱

If $m\angle A + m\angle B = 180$ and

$m\angle A + m\angle D = 180$

↓

Then *ABCD* is a ▱