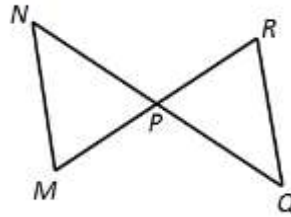


Proving Lines Parallel

Fill in the blanks.

Given: $\angle NMP \cong \angle MPN$; $\angle QPR \cong \angle PRQ$

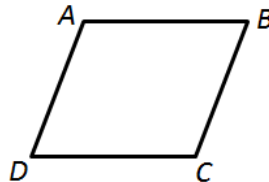
Prove: $\overline{MN} \parallel \overline{QR}$



Statement	Reason
1. $\angle NMP \cong \angle MPN$	1. Given
2. $\angle MPN \cong \angle QPR$	2. _____
3. _____	3. Transitive Property of Congruence
4. _____	4. Given
5. _____	5. _____
6. $\overline{MN} \parallel \overline{QR}$	6. _____ _____

Given: $\overline{AB} \parallel \overline{DC}$; $m\angle A = m\angle C$

Prove: $\overline{AD} \parallel \overline{BC}$



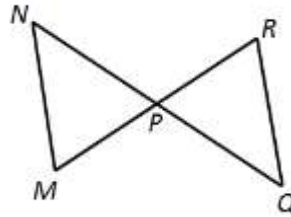
Statement	Reason
1. $\overline{AB} \parallel \overline{DC}$; $m\angle A = m\angle C$	1. Given
2. $\angle A$ and $\angle D$ are supplementary.	2. _____ _____
3. $m\angle A + m\angle D = 180^\circ$	3. _____
4. _____	4. Substitution Property of Equality
5. $\overline{AD} \parallel \overline{BC}$	5. _____ _____

Proving Lines Parallel

Fill in the blanks.

Given: $\angle NMP \cong \angle MPN$; $\angle QPR \cong \angle PRQ$

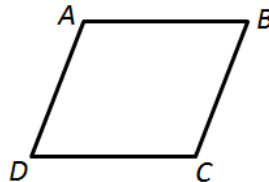
Prove: $\overline{MN} \parallel \overline{QR}$



Statement	Reason
1. $\angle NMP \cong \angle MPN$	1. Given
2. $\angle MPN \cong \angle QPR$	2. <u>Vertical angles are \cong.</u>
3. <u>$\angle NMP \cong \angle QPR$</u>	3. Transitive Property of Congruence
4. <u>$\angle QPR \cong \angle PRQ$</u>	4. Given
5. <u>$\angle NMP \cong \angle PRQ$</u>	5. <u>Transitive Property of Congruence</u>
6. $\overline{MN} \parallel \overline{QR}$	6. <u>If 2 lines are cut by a transversal such that alt. int. \angle's are \cong, the lines are \parallel.</u>

Given: $\overline{AB} \parallel \overline{DC}$; $m\angle A = m\angle C$

Prove: $\overline{AD} \parallel \overline{BC}$



Statement	Reason
1. $\overline{AB} \parallel \overline{DC}$; $m\angle A = m\angle C$	1. Given
2. $\angle A$ and $\angle D$ are supplementary.	2. <u>If 2 \parallel lines are cut by a transversal, cons. int. \angle's are supplementary.</u>
3. $m\angle A + m\angle D = 180^\circ$	3. <u>Definition of supplementary \angle's</u>
4. <u>$m\angle C + m\angle D = 180^\circ$</u>	4. Substitution Property of Equality
5. $\overline{AD} \parallel \overline{BC}$	5. <u>If 2 lines are cut by a transversal such that cons. int. \angle's are supp., the lines are \parallel.</u>