

Name: _____ Date: _____ Period: _____

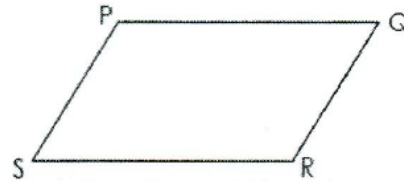
6.8 NOTES: Quadrilateral Proofs

Applied Geometry

We often use the properties of parallelograms to prove triangles are congruent, or use the properties of parallelograms and triangles to prove special parallelograms are congruent. Therefore, it's very important to know the properties of triangles, parallelograms, rectangles, rhombi, and squares.

1. Given: $\overline{PQ} \parallel \overline{SR}$ and $\overline{PQ} \cong \overline{SR}$

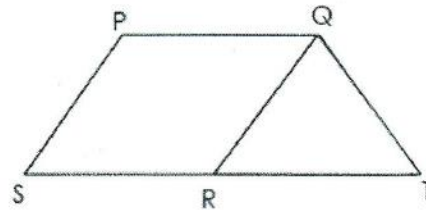
Prove: $\overline{PS} \cong \overline{QR}$



Statements	Reasons
1) _____	1) _____
2) _____	2) _____
3) _____	3) _____

2. Given: Quad $PQRS$ is a parallelogram,
and $\overline{PS} \cong \overline{QT}$

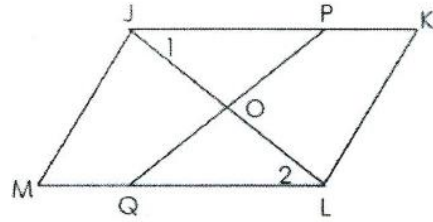
Prove: $\triangle QRT$ is isosceles



Statements	Reasons
1) _____	1) _____
2) _____	2) _____
3) _____	3) _____
4) _____	4) _____
5) _____	5) _____

3. Given: Quad $JKLM$ is a parallelogram,
and \overline{JL} bisects \overline{PQ} at O

Prove: $\Delta JPO \cong \Delta LQO$



Statements	Reasons
1) _____	1) _____
2) _____	2) _____
3) _____	3) _____
4) _____	4) _____
5) _____	5) _____
6) _____	6) _____
7) _____	7) _____
8) _____	8) _____
9) _____	9) _____