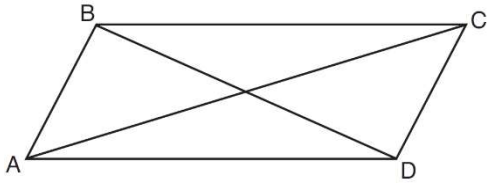
Name _____ Date _____
Mr. Schlansky Geometry

Proving Parallelograms Mini Proofs (PR4)

1. Quadrilateral *ABCD* with diagonals $\overline{AC}$ and $\overline{BD}$ is shown in the diagram below.

Which information is *not* enough to prove *ABCD* is a parallelogram?

1) $\overline{AB} \cong \overline{CD}$ and $\overline{AB} \parallel \overline{DC}$
2) $\overline{AB} \cong \overline{CD}$ and $\overline{BC} \cong \overline{DA}$
3) $\overline{AB} \cong \overline{CD}$ and $\overline{BC} \parallel \overline{AD}$
4) $\overline{AB} \parallel \overline{DC}$ and $\overline{BC} \parallel \overline{AD}$



2. Quadrilateral *ABCD* has diagonals $\overline{AC}$ and $\overline{BD}$. Which information is *not* sufficient to prove *ABCD* is a parallelogram?

1) $\overline{AC}$ and $\overline{BD}$ bisect each other.
2) $\overline{AB} \cong \overline{CD}$ and $\overline{BC} \cong \overline{AD}$
3) $\overline{AB} \cong \overline{CD}$ and $\overline{AB} \parallel \overline{CD}$
4) $\overline{AB} \cong \overline{CD}$ and $\overline{BC} \parallel \overline{AD}$

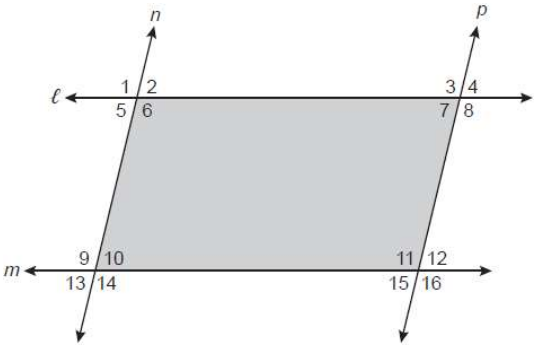
3. Quadrilateral *BEST* has diagonals that intersect at point *D*. Which statement would *not* be sufficient to prove quadrilateral *BEST* is a parallelogram?

1) $\overline{BD} \cong \overline{SD}$ and $\overline{ED} \cong \overline{TD}$
2) $\overline{BE} \cong \overline{ST}$ and $\overline{ES} \cong \overline{TB}$
3) $\overline{ES} \cong \overline{TB}$ and $\overline{BE} \parallel \overline{TS}$
4) $\overline{ES} \parallel \overline{BT}$ and $\overline{BE} \parallel \overline{TS}$

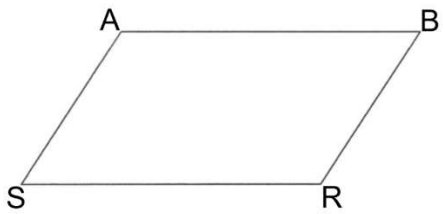
4. In the diagram below, lines ℓ and *m* intersect lines *n* and *p* to create the shaded quadrilateral as shown.

Which congruence statement would be sufficient to prove the quadrilateral is a parallelogram?

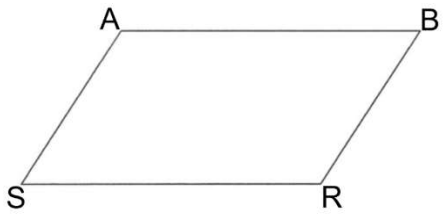
1) $\angle 1 \cong \angle 6$ and $\angle 9 \cong \angle 14$
2) $\angle 5 \cong \angle 10$ and $\angle 6 \cong \angle 9$
3) $\angle 5 \cong \angle 7$ and $\angle 10 \cong \angle 15$
4) $\angle 6 \cong \angle 9$ and $\angle 9 \cong \angle 11$



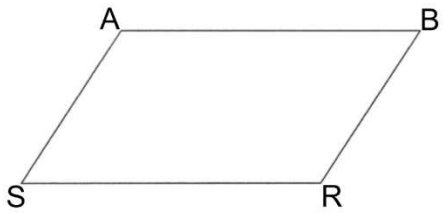
5. Given: $\overline{SA} \cong \overline{BR}$, $\overline{AB} \cong \overline{SR}$
Prove: SABR is a parallelogram



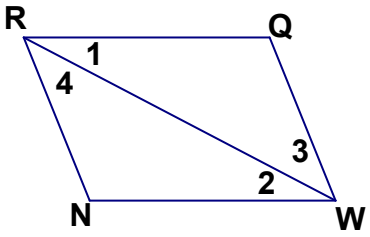
6. Given: $\overline{SA} \parallel \overline{BR}$, $\overline{AB} \parallel \overline{SR}$
Prove: SABR is a parallelogram



7. Given: $\overline{SA} \cong \overline{BR}$, $\overline{SA} \parallel \overline{BR}$
Prove: SABR is a parallelogram



8. Given: $\angle 1 \cong \angle 2$, $\angle 3 \cong \angle 4$
Prove: NRQW is a parallelogram



9. Given: $\overline{AB} \cong \overline{CD}$, $\angle 1 \cong \angle 2$
Prove: ABCD is a parallelogram