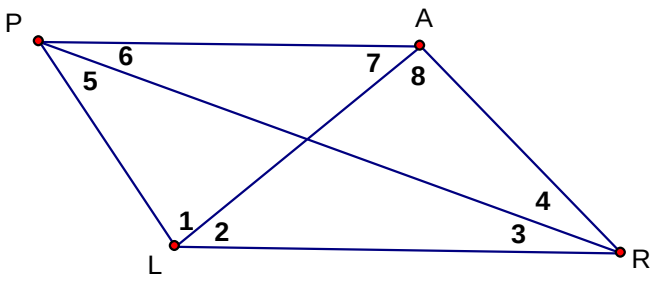
Name: _____

Proving Parallel Lines

A) Use the given information to name the segments that must be //. If there are no such segments, say so.



1) $m\angle 1 = m\angle 8$

2) $\angle 5 \cong \angle 3$

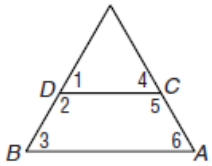
3) $\angle 2 \cong \angle 7$

4) $m\angle 5 = m\angle 4$

5) $m\angle 5 + m\angle 6 = m\angle 3 + m\angle 4$

6) $m\angle APL + m\angle PAR = 180$

B) *Given:* $\angle 4 \cong \angle 6$

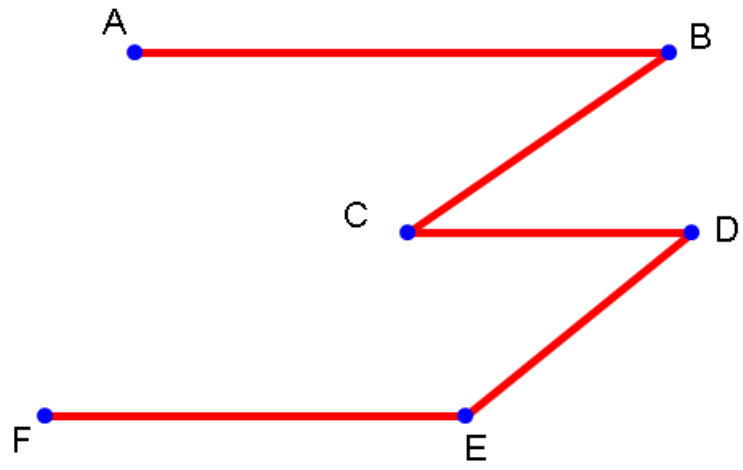


7) Prove: $\overline{AB} \parallel \overline{CD}$

C) Given: $\angle ABC \cong \angle BCD$

$\overleftrightarrow{CB} \parallel \overleftrightarrow{ED}$

$\angle CDE$ and $\angle DEF$ are supplementary angles



8) Prove: $\overleftrightarrow{AB} \parallel \overleftrightarrow{FE}$