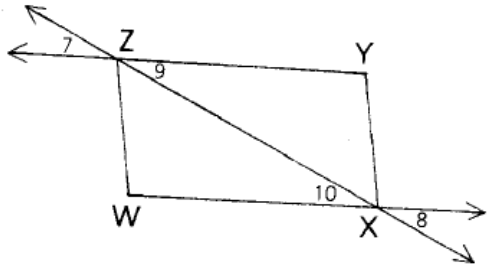
Homework Proofs

Name:_____

1.

Given: $\angle 7 \cong \angle 8$
$\overline{ZY} \cong \overline{WX}$

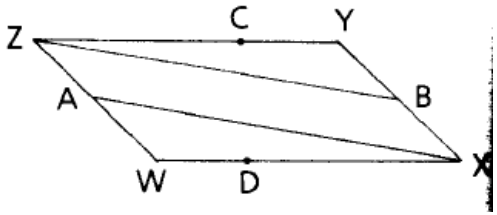
Prove: $\angle W \cong \angle Y$



2.

Given: $\overline{ZW} \cong \overline{YX}$, $\overline{CY} \cong \overline{WD}$
$\overline{ZC} \cong \overline{DX}$, $\overline{ZB} \cong \overline{AX}$
A and B are midpoints

Conclusion: $\angle W \cong \angle Y$

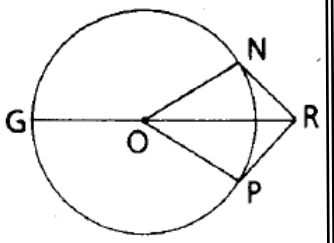


3.

Given: $\odot Q$

$\angle NOG \cong \angle POG$

Conclusion: $\overrightarrow{RO}$ bisects $\angle NRP$



4.

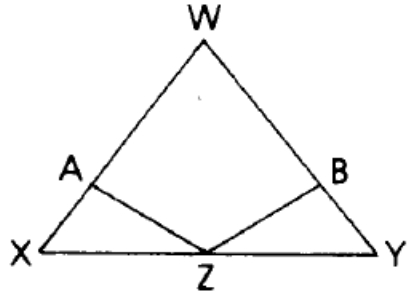
Given: $\overline{AZ} \cong \overline{ZB}$

Z is the midpt. of $\overline{XY}$

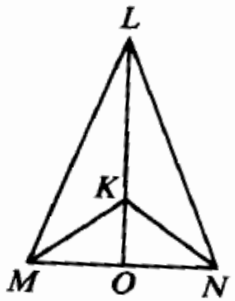
$\angle AZX \cong \angle BZY$

$\overline{XW} \cong \overline{YW}$

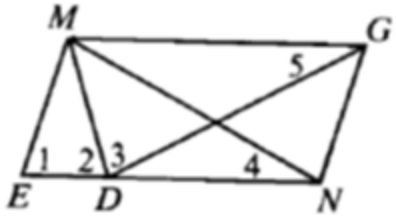
Prove: $\overline{AW} \cong \overline{BW}$



5. Given: $\overline{LM} \cong \overline{LN}$; $\overline{KM} \cong \overline{KN}$;
$\overrightarrow{KO}$ bisects $\angle MKN$.
Prove: $\overrightarrow{LO}$ bisects $\angle MLN$.



6. **Given:** $\measuredangle 1 \cong \measuredangle 3$
$\overline{EN} \cong \overline{DG}$

$\overline{ME} \cong \overline{MD}$

Prove: $\measuredangle 4 \cong \measuredangle 5$