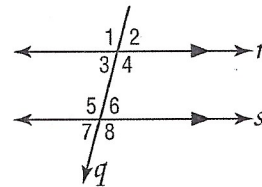


9/8/14

LT 1.2 Skills Practice

Angles and Parallel Lines



In the figure, $m\angle 2 = 70$. Find and prove the measure of each angle using a two-column proof.

1. Prove: $m\angle 3 = 70$
Given: $m\angle 2 = 70$

Statement	Reason
$m\angle 2 = 70$	Given
$\angle 2 \cong \angle 3$	Def. of vertical \angle s
$m\angle 2 = m\angle 3$	Def. of congruent \angle s
$m\angle 3 = 70$	substitution

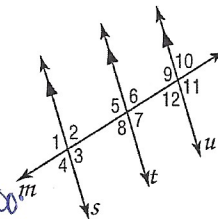
- ~~2.~~ Prove: $m\angle 8$
Given:

Statement	Reason

- ~~3.~~ Prove: $m\angle 4$
Given:

Statement	Reason

In the figure, $m\angle 7 = 100$. Find and prove the measure of each angle using a two-column proof. Redraw the picture if necessary!



7. Prove: $m\angle 9 = 100$
Given: $m\angle 7 = 100$

Statement	Reason
$m\angle 7 = 100$	Given
$\angle 7 \cong \angle 11$	Corresponding \angle Post.
$\angle 11 \cong \angle 9$	Def. of vertical \angle s
$\angle 7 \cong \angle 9$	Transitive
$m\angle 7 = m\angle 9$	Def. of congruent \angle s
$m\angle 9 = 100$	Substitution

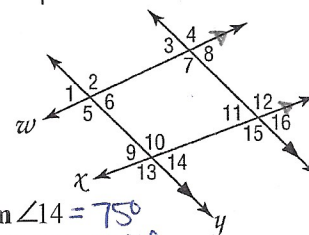
- * 8. Prove: $m\angle 8 = 80^\circ$
Given: $m\angle 7 = 100$

Statement	Reason
$m\angle 7 = 100$	Given
$m\angle 8 + m\angle 7 = 180$	Def. of supplementary
$m\angle 8 + 100 = 180$	Substitution
$m\angle 8 = 80$	subtraction

9. Prove: $m\angle 5 = 100$
Given: $m\angle 7 = 100$

Statement	Reason
$m\angle 7 = 100$	Given
$\angle 7 \cong \angle 5$	Def. of vertical \angle s
$m\angle 7 = m\angle 5$	Def. of congruent \angle s
$m\angle 5 = 100$	substitution

In the figure, $m\angle 3 = 75$ and $m\angle 10 = 105$. Find and prove the measure of each angle using a two-column proof. Redraw the picture if necessary!



- * 13. Prove: $m\angle 2 = 105$
Given: $m\angle 10 = 105$

Statement	Reason
$m\angle 10 = 105$	Given
$\angle 2 \cong \angle 10$	Corresponding \angle Post.
$m\angle 2 = m\angle 10$	Def. of congruent \angle s
$m\angle 2 = 105$	substitution

- * 14. Prove: $m\angle 7 = 105$
Given: $m\angle 3 = 75^\circ$

Statement	Reason
$m\angle 3 = 75$	Given
$m\angle 3 + m\angle 7 = 180$	Def. of supplementary
$75 + m\angle 7 = 180$	substitution
$m\angle 7 = 105$	subtraction

- * 15. Prove: $m\angle 14 = 75^\circ$
Given: $m\angle 10 = 105^\circ$

Statement	Reason
$m\angle 10 = 105$	Given
$m\angle 10 + m\angle 14 = 180$	Def. of supplementary
$105 + m\angle 14 = 180$	substitution
$m\angle 14 = 75^\circ$	subtraction