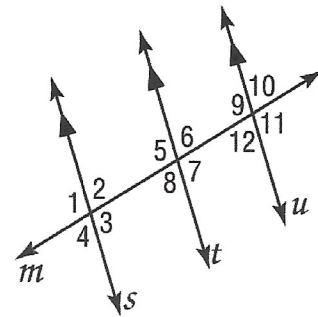


LT 1.2 Skills Practice #3

Angles and Parallel Lines

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: $m\angle 9 = 100$

8. Prove: $m\angle 12 = 80$

9. Prove: $m\angle 1 = 100$

Given: $m\angle 7 = 100$

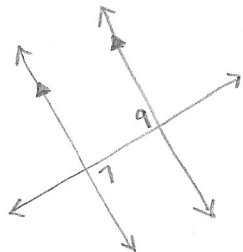
Statement	Reason
$m\angle 7 = 100$	Given
$\angle 7 \cong \angle 9$	Alternate Interior \neq Theorem
$m\angle 7 = m\angle 9$	Def. of congruent \neq s
$m\angle 9 = 100$	Substitution

Given: $m\angle 7 = 100$

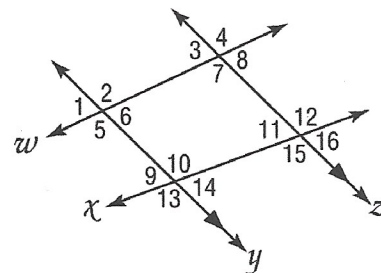
Statement	Reason
$m\angle 7 = 100$	Given
$\angle 7$ & $\angle 12$ are supplementary	Consecutive Interior \neq Theorem
$m\angle 7 + m\angle 12 = 180$	Def. of supplementary \neq s
$100 + m\angle 12 = 180$	Substitution
$m\angle 12 = 80$	Subtraction

Given: $m\angle 7 = 100$

Statement	Reason
$m\angle 7 = 100$	Given
$\angle 7 \cong \angle 1$	Alternate Exterior \neq Theorem
$m\angle 7 = m\angle 1$	Def. of congruent \neq s
$m\angle 1 = 100$	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: $m\angle 2 = 105$

14. Prove: $m\angle 15 = 105$

Given: $m\angle 3 = 75$

Given: $m\angle 10 = 105$

Statement	Reason
$m\angle 3 = 75$	Given
$\angle 3$ & $\angle 2$ are supplementary	Consecutive Interior \neq Theorem
$m\angle 3 + m\angle 2 = 180$	Def. of supplementary \neq s
$75 + m\angle 2 = 180$	Substitution
$m\angle 2 = 105$	Subtraction

Statement	Reason
$m\angle 10 = 105$	Given
$\angle 10 \cong \angle 15$	Alternate Interior \neq Theorem
$m\angle 10 = m\angle 15$	Def. of congruent \neq s
$m\angle 15 = 105$	Substitution

