

Answer Key #2

1. $\angle 1$ and $\angle 7$ form a linear pair		GIVEN
$\angle 1$ and $\angle 7$ are supplementary angles	Linear Pair Theorem <i>(LPT-If two angles form a linear pair then they are supplementary.)</i>	
$m\angle 1 + m\angle 7 = 180$ degrees	Definition of Supplementary Angles <i>(Supplementary Angles-Two angles whose measures have a sum of 90 degrees.)</i>	
2. $\overline{MA} \cong \overline{TH}$		GIVEN
$MA = TH$	Definition of Congruent Segments <i>(Congruent Segments- Segments that have the same length.)</i>	
3. $\angle QWE$ and $\angle MNB$ are supp; $\angle WSZ$ and $\angle MNB$ are supp		GIVEN
$\angle QWE \cong \angle WSZ$	Congruent Supplements Theorem <i>(CST-If two angles are supplementary to the same angle then the two angles are congruent.)</i>	
$m\angle QWE = m\angle WSZ$	Definition of Congruent Angles <i>(Congruent angles - Angles that have the same measure.)</i>	
4. $m\angle 7 = 30$ degrees $m\angle 8 = 30$ degrees		GIVEN
$m\angle 7 = m\angle 8$	Transitive Property of Equality (If $a = b$ and $b = c$ then $a = c$) <i>(Technically this could be substitution also)</i>	
$\angle 7 \cong \angle 8$	Definition of Congruent Angles	
5. $\angle 1 \cong \angle 8$		GIVEN
$m\angle 1 = m\angle 8$	Definition of Congruent Angles <i>(Congruent angles - Angles that have the same measure.)</i>	
6. $AB = DC$; $DC = EF$; $EF = GH$; $GH = IJ$		GIVEN
$AB = IJ$	Transitive Property of Equality (If $a = b$ and $b = c$ then $a = c$) <i>(Substitution would have to be applied 3 times...not the best choice here)</i>	
17. $\angle MJR$ is a rt angle; $\angle TUV$ is a rt angle		GIVEN
$\angle MJR \cong \angle TUV$	Right Angle Congruence Theorem <i>(RACT-All right angles are congruent.)</i>	
$m\angle MJR = m\angle TUV$	Definition of Congruent Angles <i>(Congruent angles - Angles that have the same measure.)</i>	