Geometry Chapter 4 Review

ANSWERS

Fall 2013

1. Yes, $\triangle AQC \cong \triangle GWC$ by either ASA or AAS

2. Yes, $\triangle MKG \cong \triangle MKR$ by HL

3. Yes, $\triangle KNB \cong \triangle PBN$ by ASA

4. Yes, $\triangle RKC \cong \triangle LKT$ by SAS

5. Yes, $\triangle DEQ \cong \triangle QYD$ by SSS

6. Yes, $\triangle GUM \cong \triangle HUM$ by SAS

7.

Statement	Reason	
1. \overline{DB} bisects $\angle ABC$ and $\overline{AB} \cong \overline{CB}$	1. Given	
2 . ∠ <i>ABD</i> ≅ ∠ <i>CBD</i>	2. Def of Angle Bisector	
3. $\overline{BD} \cong \overline{BD}$	3. Reflexive Property	
4 . $\triangle ABD \cong \triangle CBD$	4. SAS	

8. x = 39

9. x = 54

10. $m \angle 1 = 70^{\circ}, m \angle 2 = 20^{\circ}, m \angle 3 = 90^{\circ}, m \angle 4 = 20^{\circ}$

11.

Statement	Reason	
1. \overline{TC} bisects $\angle MCW$ and $\angle W \cong \angle M$	1. Given	
2. $\overline{CT} \cong \overline{CT}$	2. Reflexive Property	
3. ∠ <i>MCT</i> ≅ ∠ <i>WCT</i>	3. Def of Angle Bisector	
4 . $\triangle MCT \cong \triangle WCT$	4. AAS	
5. $\overline{MT} \cong \overline{WT}$	5. CPCTC	

12.

Statement	Reason
1. A is the midpt of \overline{GE} , $\overline{QE}\&\overline{VG}$ are \bot to \overline{GE} , and $\overline{VA}\cong\overline{QA}$	1. Given
2. $\overline{GA} \cong \overline{EA}$	2. Def of Midpoint
3. $\triangle AGV \cong \triangle AEQ$	3. HL
4 . ∠ <i>Q</i> ≅ ∠ <i>V</i>	4. CPCTC