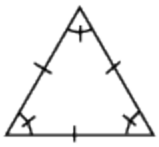
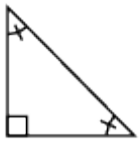
Chapter 5 Test Review Name: _____ Period: _____

Classify each triangle by its sides and by the measure of its angles.

1. 

Classified by sides: _____

Classified by angles: _____

2. 

Classified by sides: _____

Classified by angles: _____

What can you conclude from the given statement? Provide a reason why.

3. $\overrightarrow{CB}$ bisects $\angle ACD$, so $\angle$_____ $\cong \angle$_____ because _____.

4. $\overline{XA}$ bisects $\overline{ZW}$ at point A, so _____ $\cong$ _____ because _____.

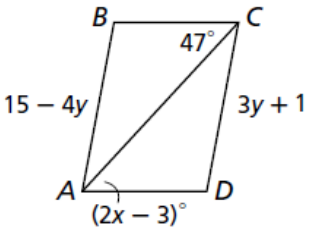
5. M is the midpoint of $\overline{OK}$, so _____ $\cong$ _____ because _____.

6. Given: $\Delta PQR \cong \Delta XYZ$. Identify the congruent corresponding parts. (Hint: Letter order matters!)

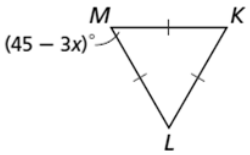
   a. $\overline{PR} \cong$ _____

   b. $\angle RPQ \cong \angle$_____

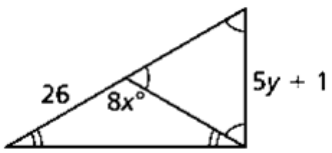
7. Given: $\Delta ABC \cong \Delta CDA$. Find *x* and *y*.



8. Find the value of *x*.

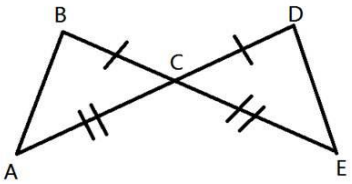


9. Find the values of *x* and *y* in the diagram.



For #10 & 11, name the additional side or angle that needs to be congruent in order to prove congruent triangles by each method. (*Hint: Letter order matters!!*)

10. Prove $\Delta ABC \cong \Delta EDC$

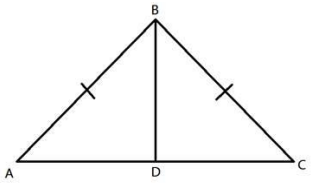


(Note: $\angle B$ and $\angle D$ are <u>not</u> right angles)

a. To prove by SSS $\cong$, we need _____ $\cong$ _____

b. To prove by SAS $\cong$, we need $\angle$_____ $\cong \angle$_____

11. Prove $\Delta ABD \cong \Delta CBD$



(Note: $\angle D$ is <u>not</u> a right angle)

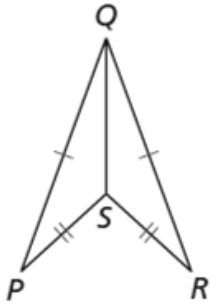
a. To prove by SAA ≅, we need ∠_____ ≅ ∠_____

b. To prove by ASA ≅, we need ∠_____ ≅ ∠_____

10. Write a two-column proof.

Given: $\overline{PR} \cong \overline{RQ}$, $\overline{PS} \cong \overline{RS}$

Prove: $\Delta PQS \cong \Delta RQS$

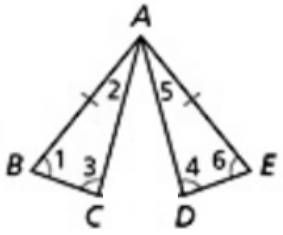


Statements	Reasons
1.	1.
2.	2.
3.	3.

11. Write a two-column proof.

Given: $\angle 1 \cong \angle 6, \angle 4 \cong \angle 6, \angle 1 \cong \angle 3, \overline{AB} \cong \overline{AE}$

Prove: $\overline{AC} \cong \overline{AD}$



Statements	Reasons
1.	1.
2.	2.
3.	3.