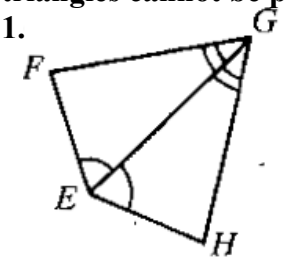
Geometry **HW #_____** **Name_____**

Ch 4 Review A

Per_____ **Col____**

(a) Name the triangles that could be proved congruent and (b) list the method you would use. If triangles cannot be proved congruent, leave part (a) blank and write "none" for (b).

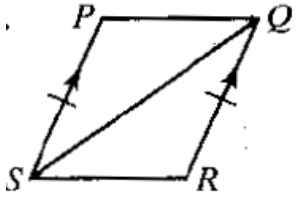
1.



a)_____≅_____

b)_____

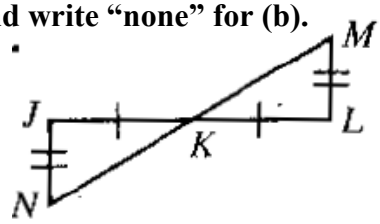
2.



a)_____≅_____

b)_____

3.

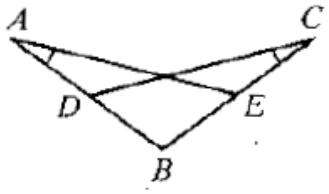


a)_____≅_____

b)_____

(a) Name a pair of overlapping triangles that could be proved congruent based on the given.
(b) List the method you would use.

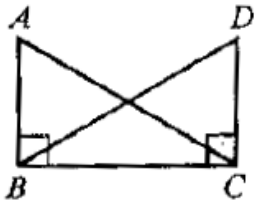
4. Given: $AE = DC$; $\angle A \cong \angle C$



a)_____≅_____

b)_____

5. Given: $AC = BD$; $\overline{AB} \perp \overline{BC}$; $\overline{BC} \perp \overline{DC}$

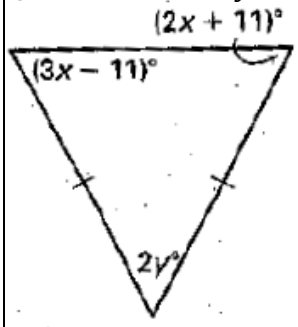


a)_____≅_____

b)_____

5. Draw obtuse triangle ΔRST with obtuse angle at *S*. Draw altitude $\overline{RX}$, angle bisector $\overline{SY}$, and median $\overline{TZ}$. Mark the right angles, congruent segments, and congruent angles.

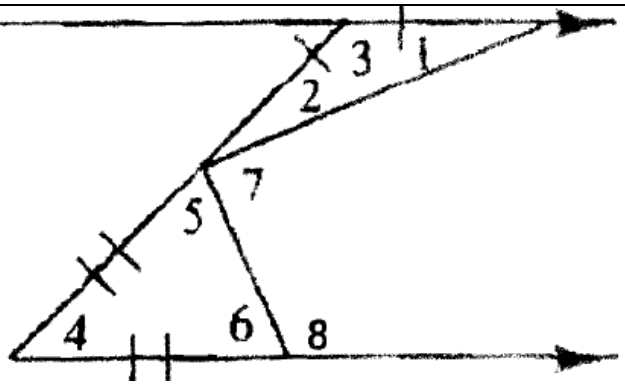
6. Find *x* and *y*.



7. (review) Find the measure of one interior angle of a 22-gon.

8. (review) Find the measure of one exterior angle of a regular 40-gon.

9.



m∠ 3 = 134;

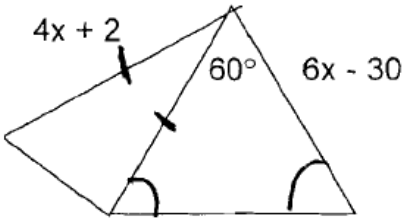
m∠ 1 = _____ **m∠ 2 = _____**

m∠ 4 = _____ **m∠ 5 = _____**

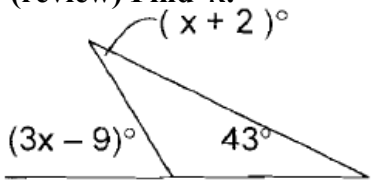
m∠ 6 = _____ **m∠ 7 = _____**

m∠ 8 = _____

10. Find *x*.



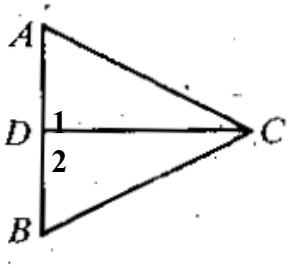
11. (review) Find *x*.



12. Complete the proof:

Given: $\overline{DC}$ **bisects** $\overline{AB}$, $\overline{AB} \perp \overline{DC}$

Prove: $\angle A \cong \angle B$



STATEMENTS	REASONS
1. $\overline{DC}$ bisects $\overline{AB}$	1. Given
2. $\overline{AD} \cong \overline{BD}$	2.
3. $\overline{AB} \perp \overline{DC}$	3. given
4. ∠ 1 and ∠2 are right ∠s	4.
5. ∠ 1 ≅ ∠ 2	5.
6.	6. reflexive
7. $\Delta ADC \cong \Delta$ _____	7.
8.	8.

13. Do the following proof on your own paper. Copy given, prove, and figure.

Given: $\overline{QS} \parallel \overline{RU}$, $\overline{RS} \parallel \overline{TU}$, ***R*** **is the midpoint of** $\overline{QT}$

Prove: $\overline{RS} \cong \overline{TU}$