

DATE DUE : _____

Name : _____ Period : _____

Chapter 4 - Review

For #1-9, using a ruler, draw and accurately label an example of each of the following classifications of triangles. Include angles measures, side lengths and congruency marks.

1. Right Triangle

2. Isosceles Triangle

3. Equiangular Triangle

4. Obtuse Triangle

5. Scalene Triangle

6. Acute Triangle

7. Equilateral Triangle

8. Right Isosceles Triangle

9. Obtuse Scalene Triangle

DATE DUE : _____ Name : _____ Period : _____

10. Find the measure of the sides of the triangle. Classify the triangle by its sides.

Show all work.

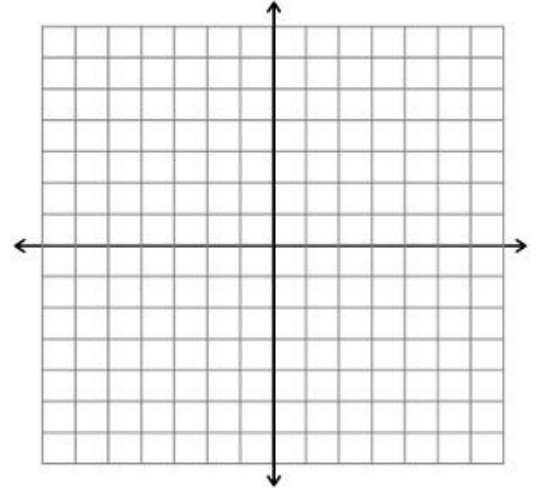
$\triangle TWZ$ has vertices $T(2, 6)$, $W(4, -5)$ and $Z(-3, 0)$

$TW =$ _____

$WZ =$ _____

$ZT =$ _____

Classification: _____



11. Find each angle measure

$m\angle 1 =$ _____

$m\angle 2 =$ _____

$m\angle 3 =$ _____

$m\angle 4 =$ _____

$m\angle 5 =$ _____

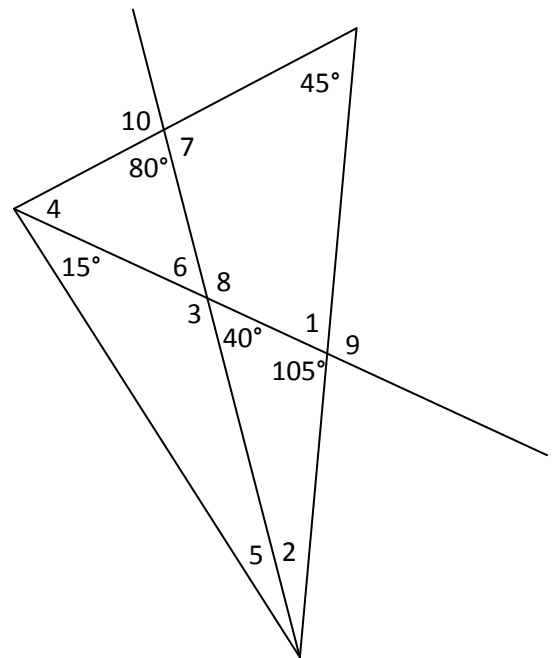
$m\angle 6 =$ _____

$m\angle 7 =$ _____

$m\angle 8 =$ _____

$m\angle 9 =$ _____

$m\angle 10 =$ _____



DATE DUE : _____ Name : _____ Period : _____

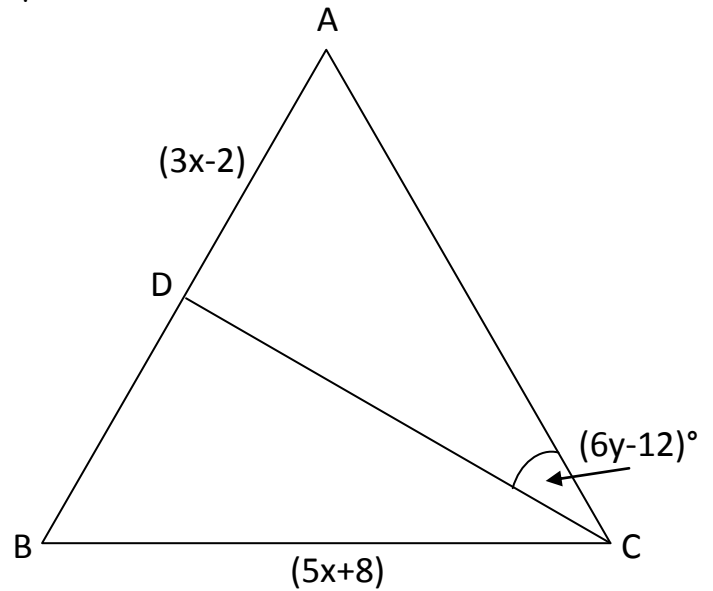
12. $\triangle ABC$ is an equilateral triangle. \overline{CD} bisects \overline{AB} .

a) Mark all congruent sides and angles on the picture

b) Find x and y . Show all work.

$x =$ _____

$y =$ _____



13. Find each angle measure if $m\angle 4 = m\angle 5$

$m\angle 1 =$ _____

$m\angle 2 =$ _____

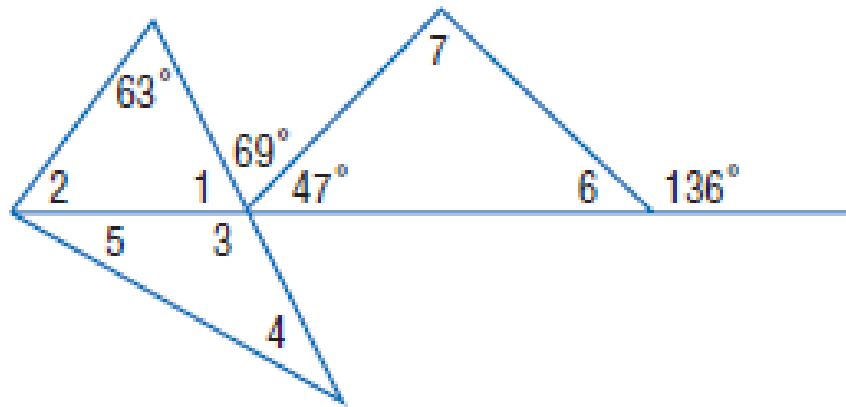
$m\angle 3 =$ _____

$m\angle 4 =$ _____

$m\angle 5 =$ _____

$m\angle 6 =$ _____

$m\angle 7 =$ _____



DATE DUE : _____ Name : _____ Period : _____

For # 14-17, identify the corresponding congruent angles and sides, then name the congruent triangles in each figure.

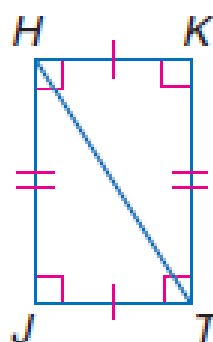
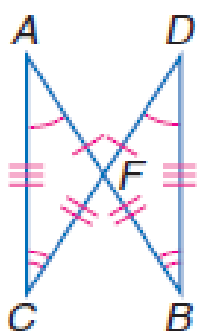
14. Angles: _____ 15. Angles: _____

Sides: _____

Sides: _____

Congruent Triangles: _____

Congruent Triangles: _____



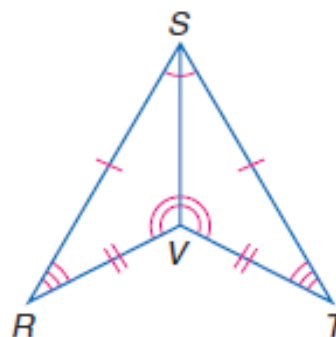
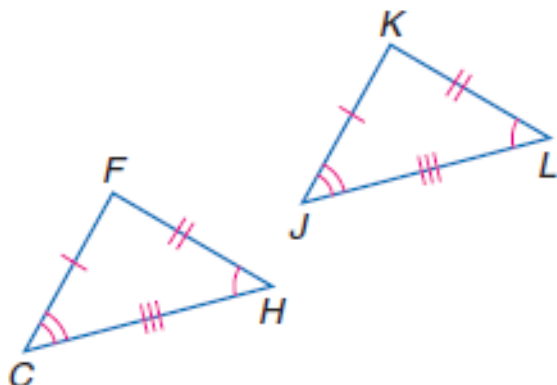
16. Angles: _____ 17. Angles: _____

Sides: _____

Sides: _____

Congruent Triangles: _____

Congruent Triangles: _____



DATE DUE : _____

Name : _____

Period : _____

18. $\triangle QRS \cong \triangle GHJ$, $RS = 12$, $QR = 10$, $QS = 6$, and $HJ = 2x-4$.

a) Draw and label a figure to show the congruent triangles

b) Find x

x = _____

19. $\triangle JKL \cong \triangle DEF$, $m\angle J = 36$, $m\angle E = 64$, and $m\angle F = 3x+52$.

a) Draw and label a figure to show the congruent triangles

b) Find x

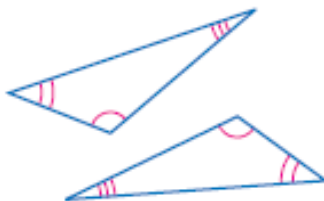
x = _____

For #20-25, determine which postulate can be used to prove that the triangles are congruent. If it is not possible to prove the triangles are congruent, write *not possible*.

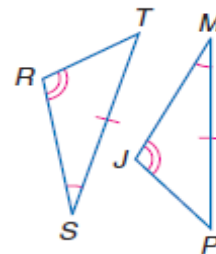
20.



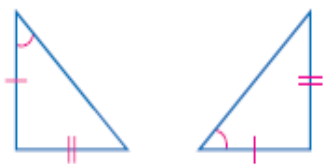
21.



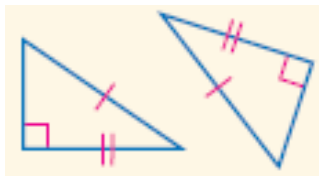
22.



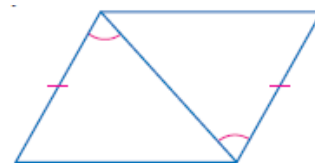
23.



24.



25.



DATE DUE : _____ Name : _____ Period : _____

26. $\triangle QRS$ is an isosceles triangle with $\overline{QR} \cong \overline{RS}$. \overline{RT} bisects $\angle QRS$ and \overline{QS} .

a) Draw and label the figure.

b) Determine which postulate(s) can be used to prove that $\triangle QRT \cong \triangle SRT$.

ASA AAS SSS AAA HL SSA SAS

27. What does **CPCTC** stand for? What is it used for?

For #28-32, draw and label two triangles that can be proven to be congruent using the specified postulate.

28. SSS

29. ASA

30. SAS

31. AAS

32. HL

DATE DUE : _____ Name : _____ Period : _____

For #33-34, draw and label two triangles that are a counterexample showing why the specified method cannot be used to prove congruence in triangles.

33. AAA

34. SSA

35. Draw an isosceles triangle. Label the vertices A, B & C where $AB = BC$.

Using the triangle, do the following:

A. Mark all congruent sides and angles.

B. Draw angle bisector BD.

C. Mark all congruent sides and angles.

D. Is the statement $\triangle ABD \cong \triangle CBD$ true? YES/NO

E. If $\triangle ABD \cong \triangle CBD$, which of the following can be used to prove the triangles are congruent? (may be more than one)

ASA AAS SSS AAA HL SSA SAS

DATE DUE : _____

Name : _____ Period : _____

36. Given: $\overline{AC} \parallel \overline{DF}$ and $\overline{BC} \cong \overline{DE}$

a) Mark all congruent sides and angles

b) Is $\triangle BCE \cong \triangle EDB$?

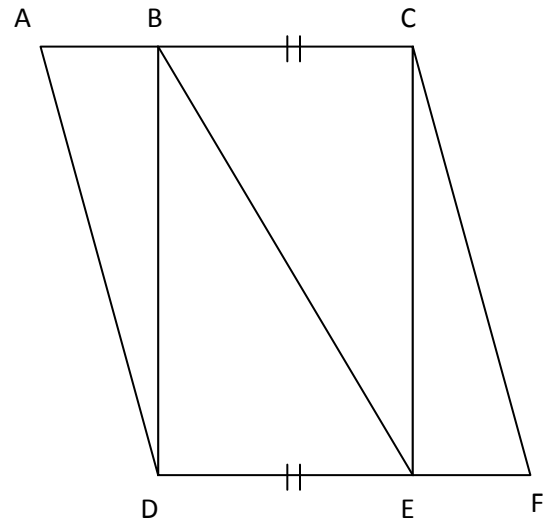
If so, by what postulate? (choose all that apply)

ASA AAS

SSS AAA

HL SSA

SAS



37. Given: $\overline{GB} \cong \overline{GD}$, $\overline{AB} \cong \overline{DE}$ and \overline{CG} bisects \overline{AE}

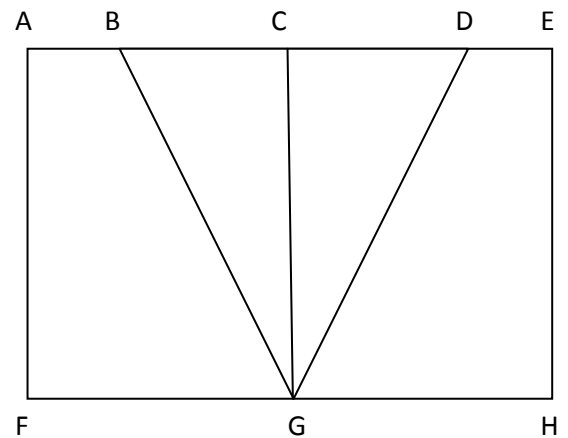
a) Classify $\triangle BGD$ by its sides

b) Mark all congruent sides and angles

c) Is the statement $\triangle BGC \cong \triangle DGC$ true? YES/NO

d) If $\triangle BGC \cong \triangle DGC$ by what postulate? (choose all that apply)

ASA AAS SSS AAA HL SSA SAS



DATE DUE : _____ Name : _____ Period : _____

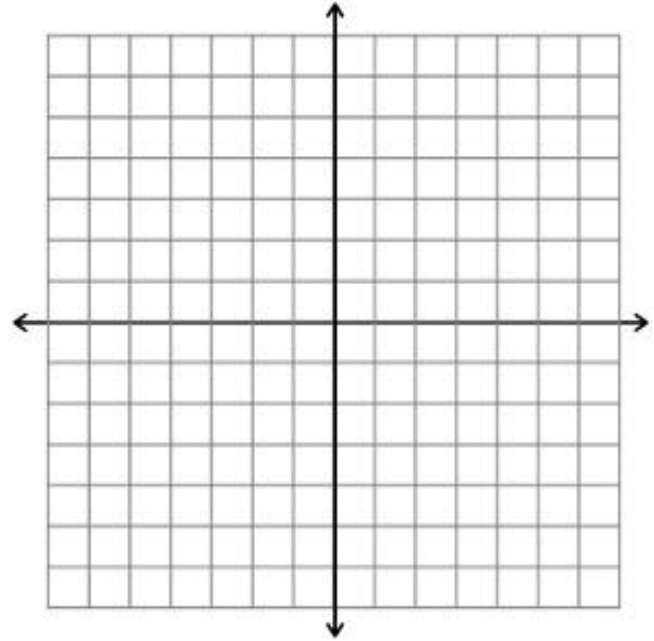
38. $\triangle QRS$ has vertices $Q(5, 6)$, $R(-3, 2)$ and $S(1, -6)$

a) Find the measure of the sides of the triangle. Show all work.

$QR =$ _____

$RS =$ _____

$SQ =$ _____



b) Classify the triangle by its sides.

Classification: _____

c) Find the midpoints of each side of the triangle

Midpoint_{QR}: _____

Midpoint_{RS}: _____

Midpoint_{SQ}: _____

DATE DUE : _____

Name : _____

Period : _____

d) Draw the three lines connecting the midpoints of each side of $\triangle QRS$.
Label the new triangle TUV.

e) Find the measure of the sides of $\triangle TUV$. Show all work.

TU = _____

UV = _____

TV = _____

f) Classify $\triangle TUV$ by its sides. Show all work to justify your answer.

Classification: _____

39. Given: E is the midpoint of \overline{FD} and $\overline{CG} \perp \overline{FD}$

a) Mark the given information on the picture.

Make sure you mark **ALL** congruent angles and sides.

