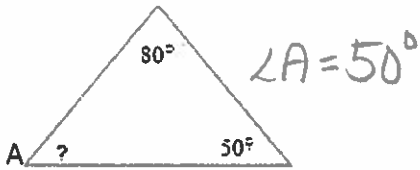


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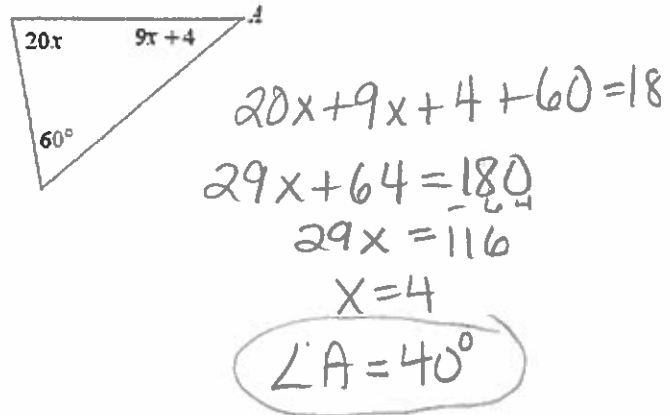
# ACP Geometry- Review for Unit 4

Find the measure of angle A.

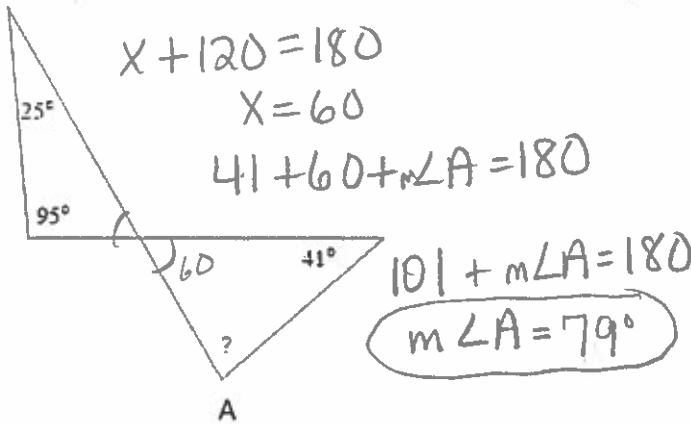
1.



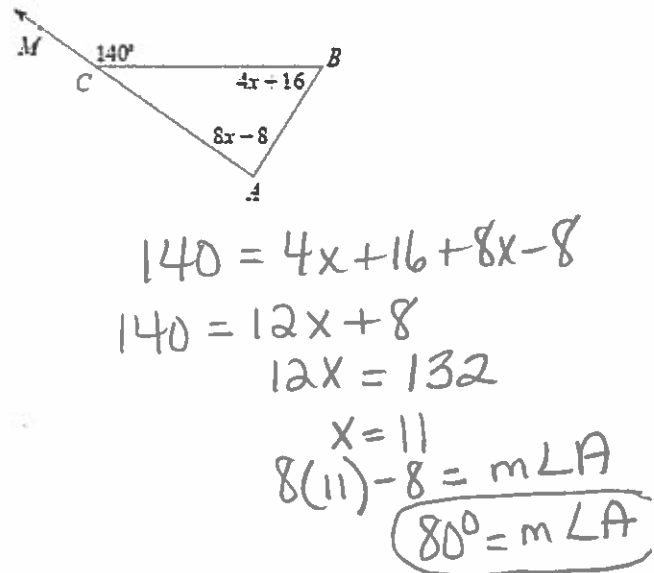
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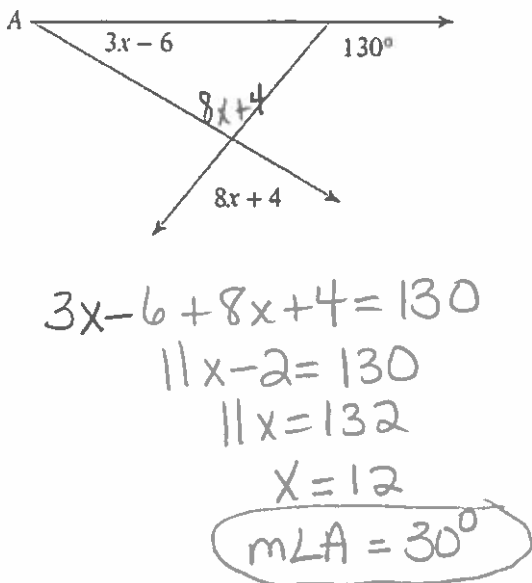
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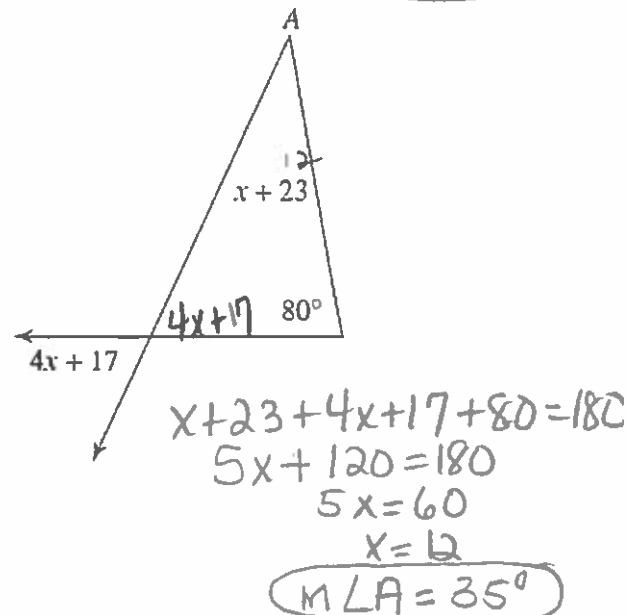
4.



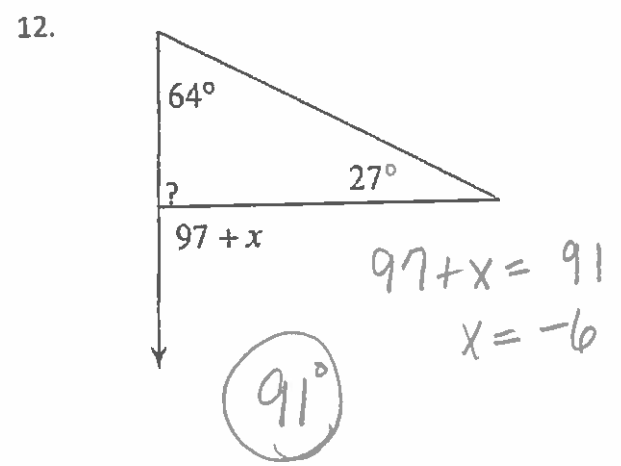
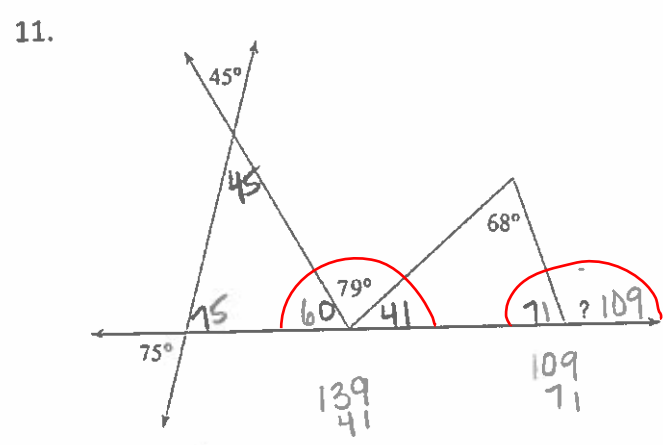
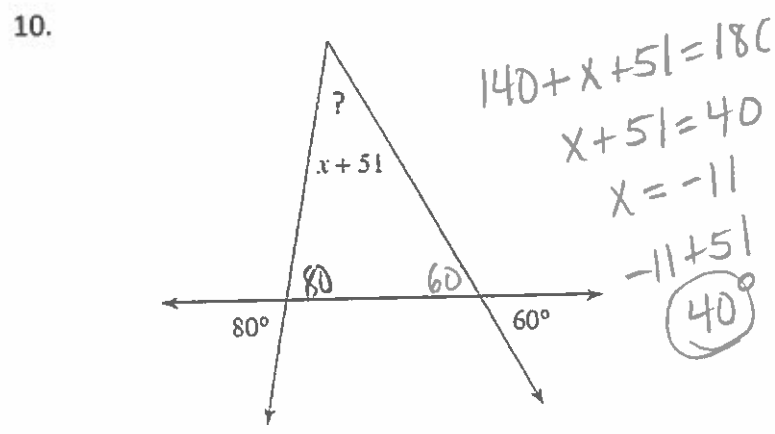
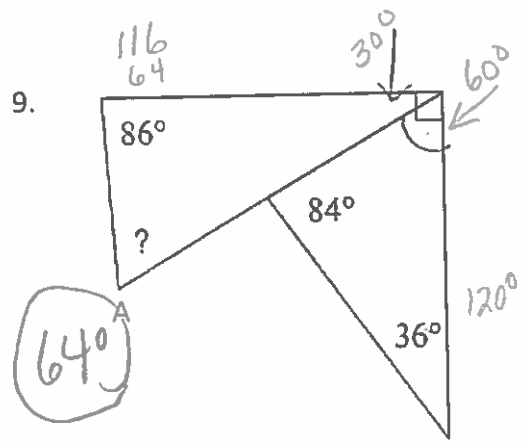
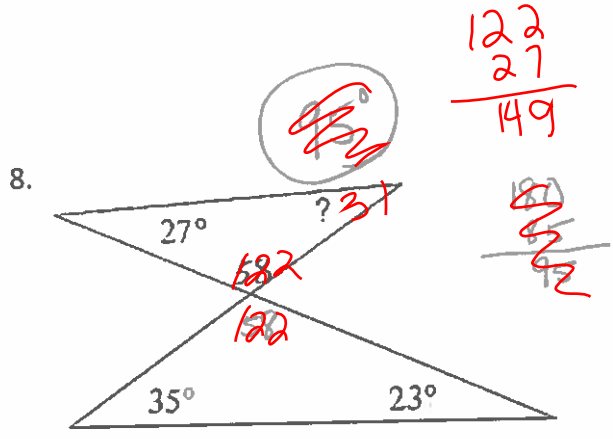
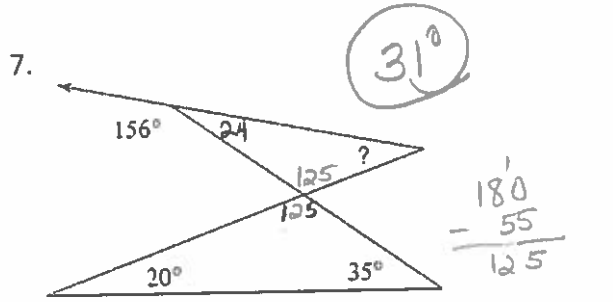
5.



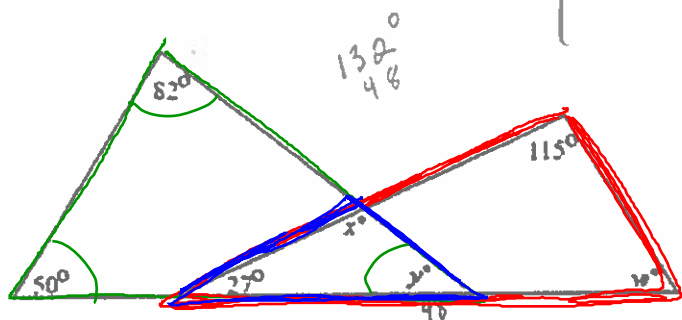
6.



Find the measure of the indicated angle. 149

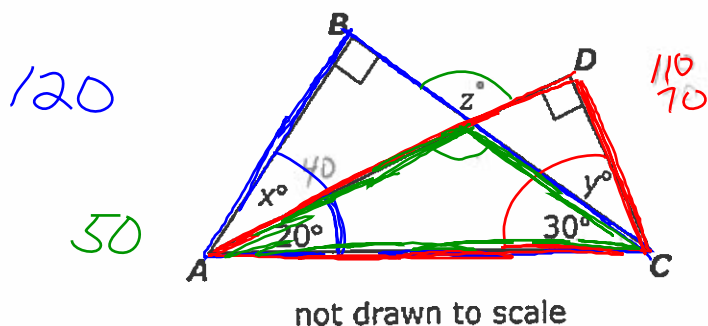


13. Find the value of each variable.



$y = \frac{48^\circ}{38^\circ}$   
 $w = 38^\circ$   
 $x = 105^\circ$   
 $z = \text{none}$

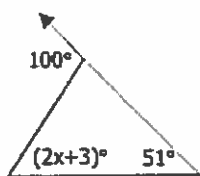
14. Find the value of each variable.



$x = 40^\circ$   
 $y = 40^\circ$   
 $z = 130^\circ$

Find the value of x and provide a justification for your answer.

15.

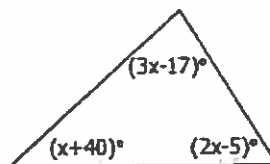


$100 = 2x + 54$   
 $46 = 2x$   
 $x = 23$

$x = 23$

Justification: Triangle Ext. L Th.

16.



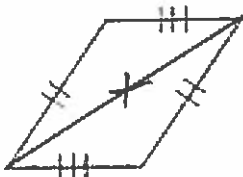
$6x + 18 = 180$   
 $6x = 162$   
 $x = 27$

$x = 27$

Justification: Triangle L Sum Th.

Determine if the triangles are congruent. If they are, write a congruence statement and name the postulate/ theorem to support your answer.

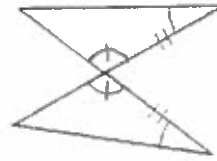
17.



Congruent? Yes or No

Postulate/ Theorem SSS

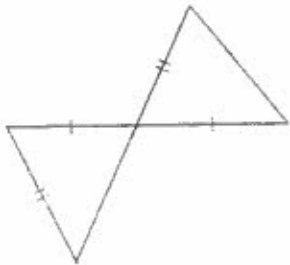
18.



Congruent? Yes or No

Postulate/ Theorem ASA

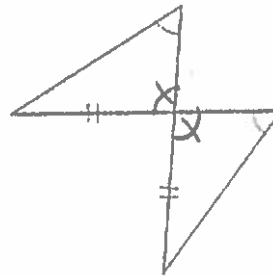
19.



Congruent? Yes or No

Postulate/ Theorem \_\_\_\_\_

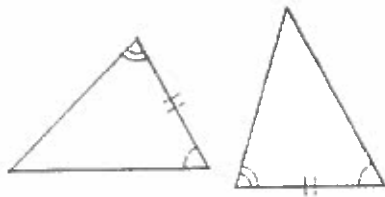
20.



Congruent? Yes or No

Postulate/ Theorem AAS

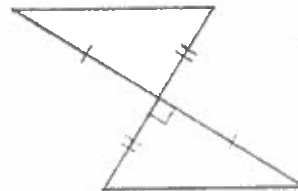
21.



Congruent? Yes or No

Postulate/ Theorem ASA

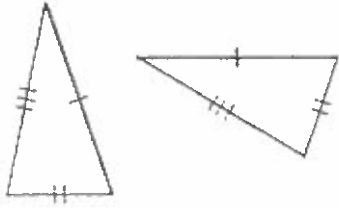
22.



Congruent? Yes or No

Postulate/ Theorem SAS

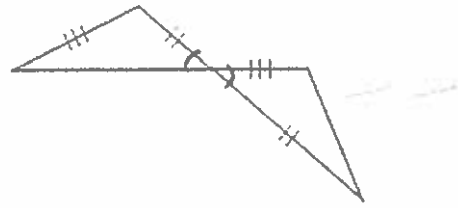
23.



Congruent? Yes or No

Postulate/Theorem SSS

24.



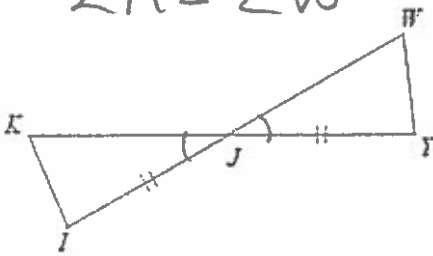
Congruent? Yes or No

Postulate/Theorem \_\_\_\_\_

State the additional set of congruent parts (angles OR sides) needed to prove that the triangles are congruent by the postulate or theorem indicated.

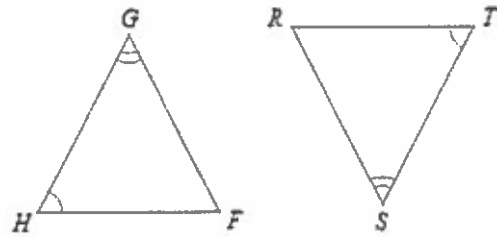
25. AAS

$$\angle K \cong \angle W$$



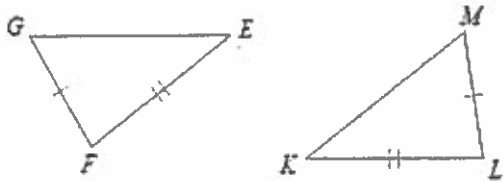
26. ASA

$$\overline{GH} \cong \overline{ST}$$



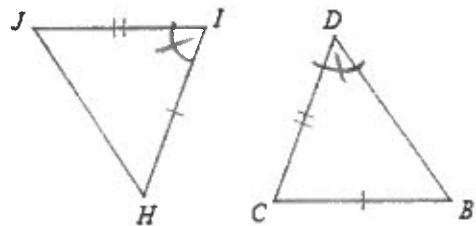
27. SSS

$$\overline{GE} \cong \overline{MK}$$



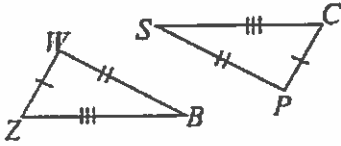
28. SAS

$$\angle I \cong \angle D$$



Write the congruence statement for the triangles. State the theorem or postulate that supports your answer.

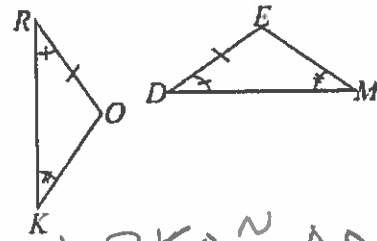
29.



Statement:  $\triangle ZBW \cong \triangle CSP$

Postulate/Theorem SSS

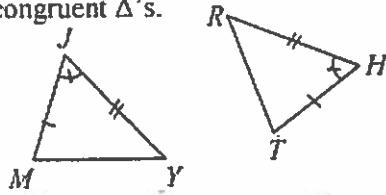
30.



Statement:  $\triangle RKO \cong \triangle DME$

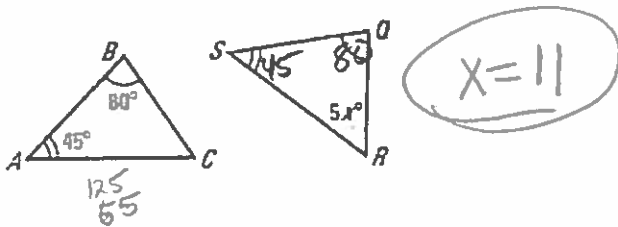
Postulate/Theorem AAS

31. Choose the correct congruence statement for the congruent  $\Delta$ 's.



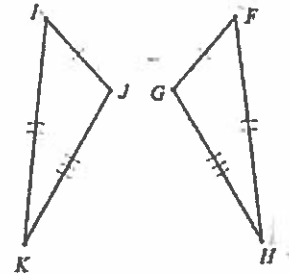
- ~~A.  $\triangle MYJ \cong \triangle RTH$~~
- ~~C.  $\triangle JYM \cong \triangle HTR$~~
- B.  $\triangle YJM \cong \triangle RHT$
- ~~D.  $\triangle MYJ \cong \triangle HRT$~~

32. What value of  $x$  would make the triangles congruent?



33. Choose the correct congruency statement for the triangles below.

- a.  $\triangle HFG \cong \triangle KIJ$
- b.  $\triangle GHF \cong \triangle KJI$
- c.  $\triangle GHF \cong \triangle KIJ$
- d.  $\triangle FGH \cong \triangle KJI$



34.  $\triangle ABC \cong \triangle RUN$ . Fill in the congruence statements.

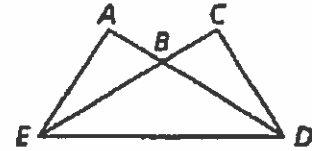
- a)  $\angle B \cong \angle U$
- b)  $\overline{UR} \cong \overline{BA}$
- c)  $\angle A \cong \angle R$
- d)  $\overline{NR} \cong \overline{CA}$

35.

The reasons in this proof are listed in the wrong order.  
Rewrite them in the correct order.

Given:  $\overline{AE} \cong \overline{CD}$ ;  $\angle AED \cong \angle CDE$

Prove:  $\angle CED \cong \angle ADE$



Statements

1.  $\overline{AE} \cong \overline{CD}$
2.  $\angle AED \cong \angle CDE$
3.  $\overline{ED} \cong \overline{DE}$
4.  $\triangle AED \cong \triangle CDE$
5.  $\angle CED \cong \angle ADE$

Reasons

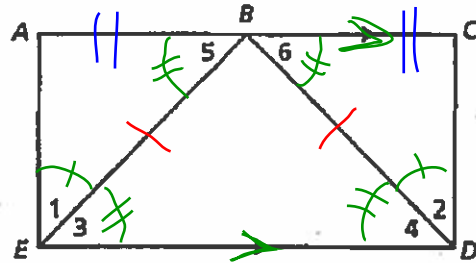
- symmetric*
- a. Reflexive Property
  - b. SAS Theorem
  - c. Given
  - d. CPCTC Theorem
  - e. Given

36.

Complete the following two-column proof by providing the best possible reasons.

Given:  $\angle 1 \cong \angle 2$ ;  $\angle 3 \cong \angle 4$   
 $\overline{AC} \parallel \overline{ED}$

Prove:  $\overline{AB} \cong \overline{CB}$



Statements

1.  $\angle 1 \cong \angle 2$
2.  $\angle 3 \cong \angle 4$
3.  $\overline{EB} \cong \overline{DB}$
4.  $\overline{AC} \parallel \overline{ED}$
5.  $\angle 5 \cong \angle 3$  and  $\angle 6 \cong \angle 4$
6.  $\angle 5 \cong \angle 6$
7.  $\triangle ABE \cong \triangle CBD$
8.  $\overline{AB} \cong \overline{CB}$

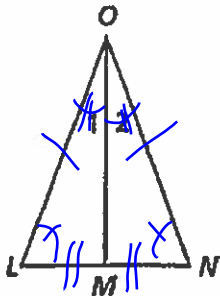
Reasons

- a. ? *of*
- b. ? *of*
- c. ? *Conv. I++*
- d. ? *of*
- e. ? *alt. int.  $\angle$  Th.*
- f. ? *trans. prop. =*
- g. ? *ASA*
- h. ? *CPCTC*

37.

Given:  $\angle L \cong \angle N$ ;  $\overline{LM} \cong \overline{NM}$

Prove:  $\angle 1 \cong \angle 2$



Statements	Reasons

