Analytic Geometry   *February 5, 2016*

Triangle Congruency:
More Practice

EQ: What does it mean if two triangles are congruent?

MCC9-12.G.CO.7 Use the definition of congruence in terms of rigid motions to show that two triangles are congruent if and only if corresponding pairs of sides and corresponding pairs of angles are congruent.
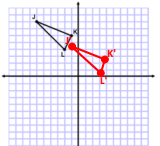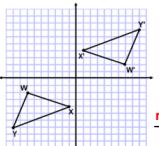
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Homework Answers

1) LG   MN   2) RS   WV

3) not enough information

4) SAS; AC   AC due to Reflexive Prop

5a) <E   b) <P

6a) HA and AT   b) AT and TH

7) SAS   8) SSS

9) △PMO   △NMO by ASA

10) △UST   △RTS by AAS

11)RS   12) <N and <O

13) ASA   14) AAS

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1
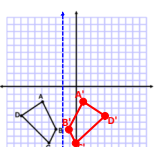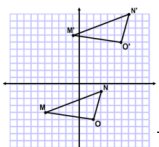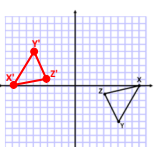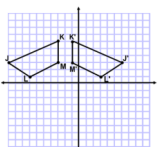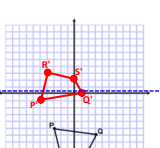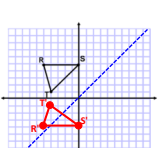
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Congruent Triangles Practice

Given that $\triangle PRT \cong \triangle XQJ$, complete the following (Make a sketch):

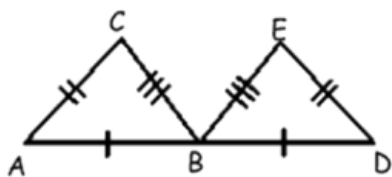9. RT $\underline{\overline{QJ}}$ 10. <J $\underline{<T}$ 11. $\triangle XJQ$ $\underline{\triangle PTR}$

12. If JQ = 24, QX=18, JX=30, and
RP = 2y + 10, then y = _____

13. If m<R=57°, m <P=62 , then m<X = $\underline{62°}$
and m<J= $\underline{61°}$
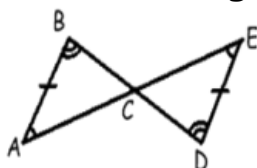
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2

14. Name the congruent triangles.

△DBE

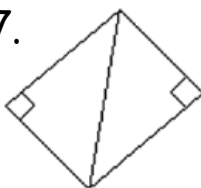15. Name the congruent triangles.

△EDC

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Determine if the triangles are congruent. If they are congruent, then list the method used. If they are not congruents, write NC. (no conclusion)
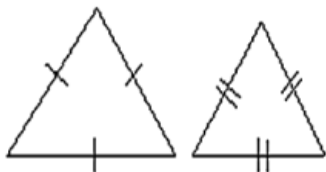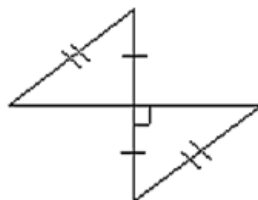
16.

SAS

17.
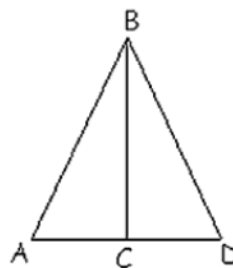

NC

18

AAS

NC

2

NC

21

ASA

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Mark the diagram using the given information. Name the triangle that is congruent to △ABC. Write the postulate or the theorem that proves the triangl

22. $\overline{AB} \cong \overline{DB}$

C is the midpoint of $\overline{AD}$

△ABC ≅ ___△DBC___

by ___SSS___

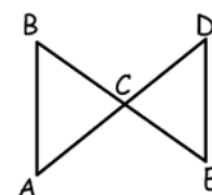23. $\overline{BE}$ and $\overline{AD}$ bisect each other
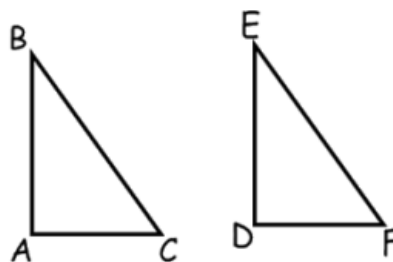
△ABC ≅ ___△DEC___

by ___SAS___

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List the corresponding parts needed to prove the triangles congruent by the given m

24. $\angle A$ and $\angle D$ are right angles.
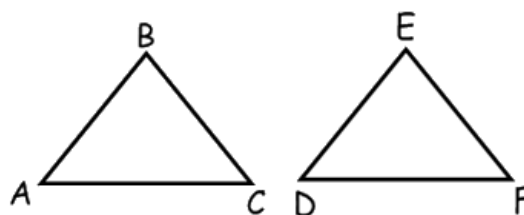$\overline{AC} \cong \overline{DF}$

___$\angle C \cong \angle F$___ ASA

25. $\overline{AB} \cong \overline{DE}$
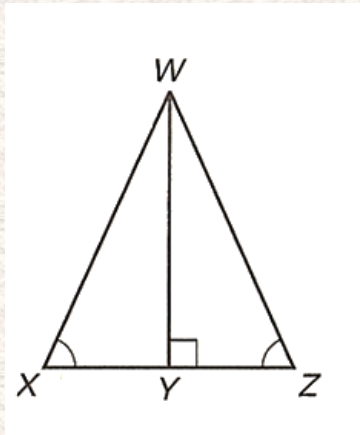$\angle B \cong \angle E$
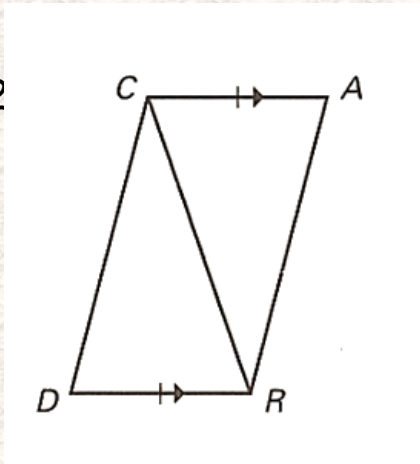
___$\angle C \cong \angle F$___ AAS

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4

Is it possible to prove that the triangles are congruent? If so, state the postulate or theorem you would use. Explain your reasoning.
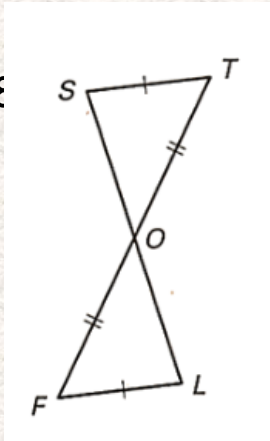

Reflexive Property	Alternate Interior Angles	NC
AAS	SAS	

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Homework

Study for Quiz

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