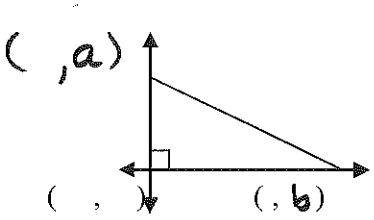
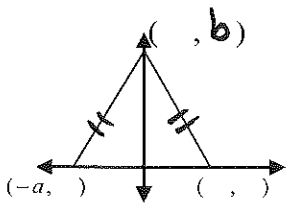
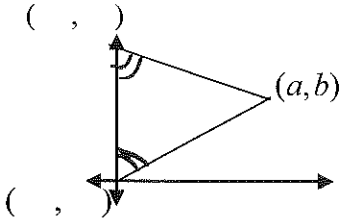
Coordinate Proofs **Name** 2nd 3rd 4th

1. Name the missing coordinates of each triangle:

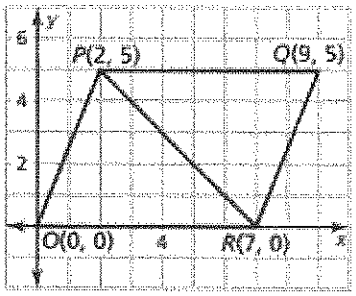






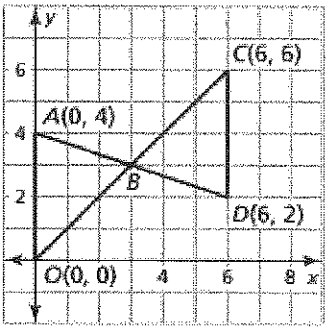
Given Coordinates of vertices of ΔOPR and ΔQRP

Proof $\Delta OPR \cong \Delta QRP$



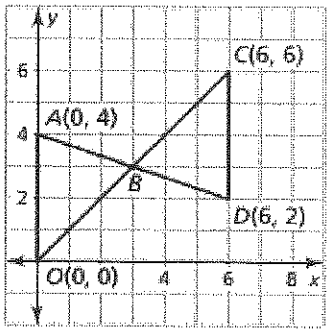
Given Coordinates of vertices of ΔOAB and ΔCDB

Prove B is the midpoint of $\overline{AD}$ and $\overline{OC}$.

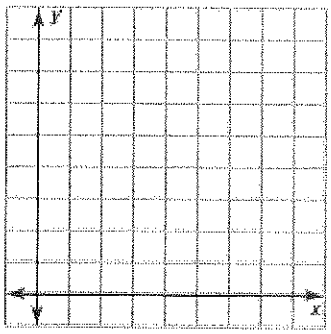


Given Coordinates of vertices of $\triangle OAB$ and $\triangle CDB$

Prove B is the midpoint of $\overline{AD}$ and $\overline{OC}$.



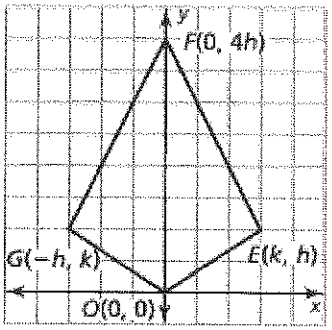
Graph the triangle with vertices $A(0, 0)$, $B(3m, m)$, and $C(0, 3m)$. Find the length and the slope of each side of the triangle. Then find the coordinates of the midpoint of each side. Is the triangle a right triangle? isosceles? Explain. (Assume all variables are positive.)



Write a coordinate proof.

Given Coordinates of vertices of $\triangle OEF$ and $\triangle OGF$

Prove $\triangle OEF \cong \triangle OGF$

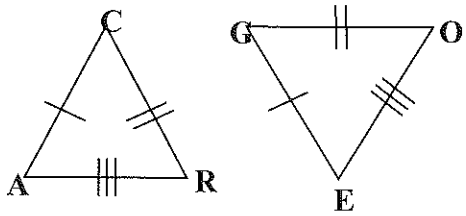


Review: Triangles and Triangle Congruence

You will need a separate piece of paper to show all your work. This review is ***not*** comprehensive; always be sure to go back through your old homework and quizzes.

◎ *I can write a congruency statement representing two congruent polygons*

1. Write a congruency statement for the two triangles at right.

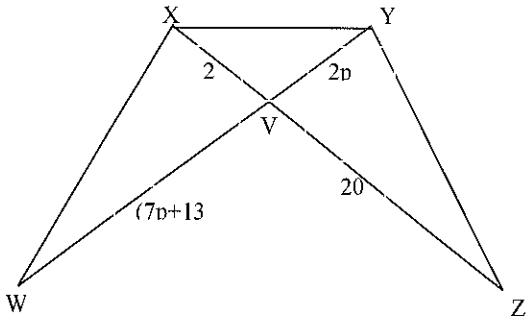


◎ *I can identify congruent parts of a polygon, given a congruency statement*

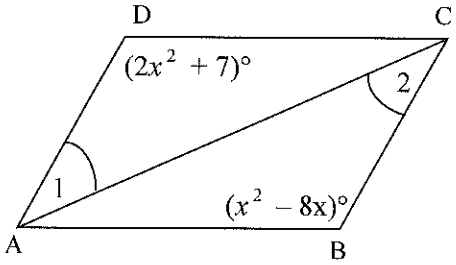
2. List ALL of the congruent parts if $\triangle EFG \cong \triangle HGF$

◎ *I can use algebra to find the side lengths and angle measures of congruent polygons*

3. $\triangle WXY \cong \triangle ZYX$. Find p.



4. $\triangle ADC \cong \triangle CBA$. Find x.



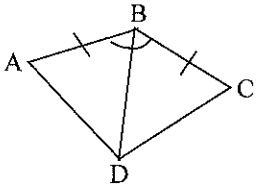
◎ *I can name the five ways to prove triangles are congruent*

5. Name the 5 ways to prove triangles congruent.

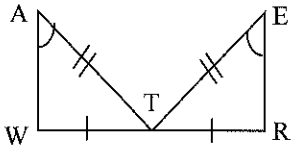
◎ *I can prove triangles are congruent*

For each pair of triangles, tell: (a) Are they congruent (b) Write the triangle congruency statement. (c) Give the postulate that makes them congruent.

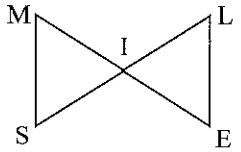
6.



7.

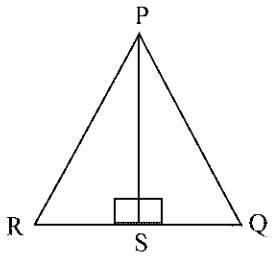


8. Given: I is the midpoint of $\overline{ME}$ and $\overline{SL}$

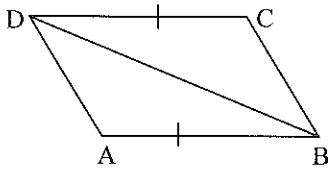


◎ *I can mark pieces of a triangle congruent given how they are to be proved congruent*

9. What information is missing to use HL?

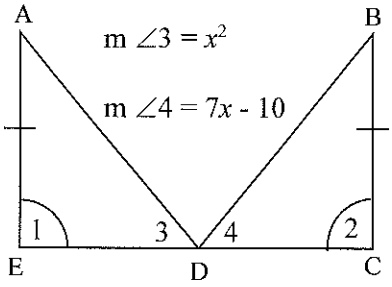


10. What information is missing to use SAS?

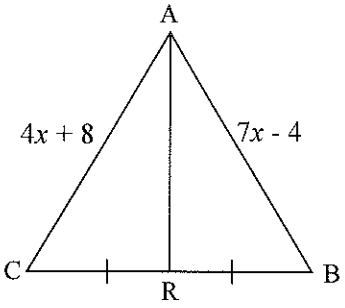


IV. For which value(s) of x are the triangles congruent?

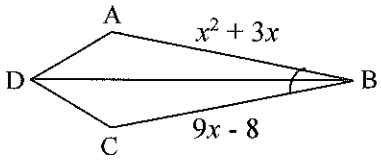
3. $x =$ _____

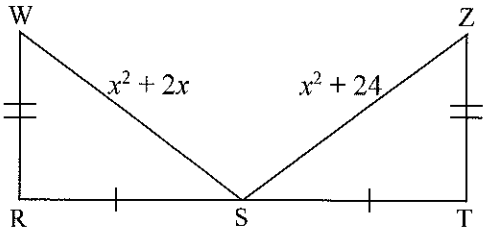


4. $x =$ _____



5. $x =$ _____



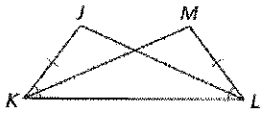


◎ *I can write a two-column proof over congruent triangles*

11.

Given: $\overline{JK} \cong \overline{ML}$, $\angle JKL \cong \angle MLK$

Prove: $\triangle JKL \cong \triangle MLK$



12. Complete and review ALL proofs on the proofs worksheet.