Semester 1 Name _____

Unit 3: Similar and Congruent Triangles

A. Similar Triangles

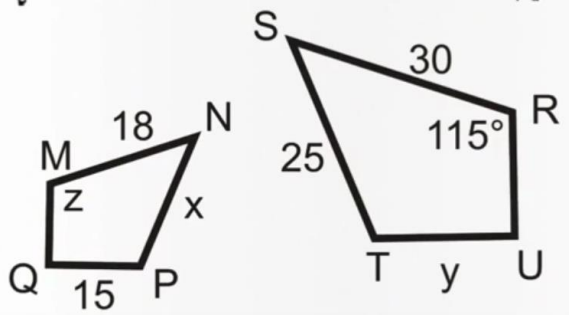
Review the video or p.32 – 34 in your notebook to complete the following examples
https://www.youtube.com/watch?v=xp3_ZaVnyj4

Example A

Suppose $\triangle ABC \sim \triangle JKL$. Based on the similarity statement, which angles are congruent and which sides are proportional?

Example B

$MNPQ \sim RSTU$. What are the values of x, y and z?



B. Proving Triangles Similar.

Watch the video or use pp. 36 – 37 in your notebook to find 3 ways to prove triangles similar. https://www.youtube.com/watch?v=N-EILBiYMqY

1. 2. 3.

C. Proving Triangles Congruent

Watch the video or use pp. 40 – 44 in your notebook to find 5 ways to prove triangles congruent. https://www.youtube.com/watch?v=vGuiy7NnJlM

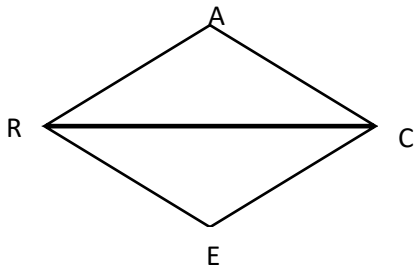
1. 2. 3. 4. 5.

Practice 10 problems and record your score
https://www.ixl.com/math/geometry/sss-sas-asa-and-aas-theorems

1. 2. 3. 4. 5.

6. 7. 8. 9. 10.

D. <u>Flow Proofs pp. 45-47 in notebook</u>
Watch and do the proofs with the video
https://www.youtube.com/watch?v=c6mFVJVQzYQ



1. Given: $\overline{AR} \cong \overline{ER}, \overline{AC} \cong \overline{EC}$
   Prove: $\Delta RAC \cong \Delta REC$

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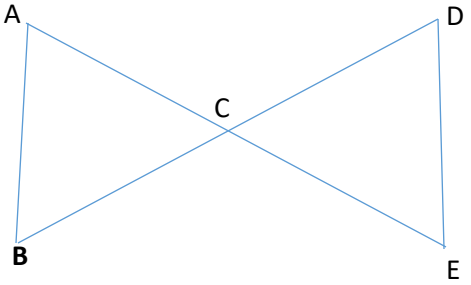
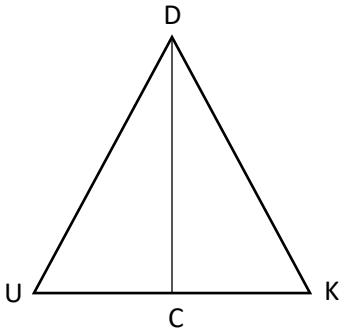
2. Given: C is the midpoint of $\overline{AE}$
   $\overline{BC} \cong \overline{CD}$
   Prove: $\Delta ABC \cong \Delta ECD$



Definition of Midpoint

3. Given: $\overline{DC} \perp \overline{UK}, \overline{DU} \cong \overline{DK}$
   Prove: $\Delta DUC \cong \Delta DKC$



Def. of Perpendicular Lines