Name:_____   Period:_____

SM2 10.4– Triangle Similarity Theorems
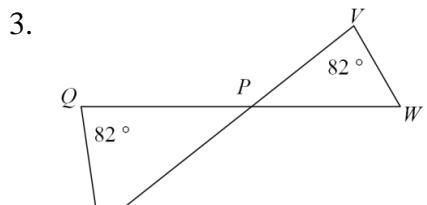
1. List any pairs of congruent angles and give a reason why each pair is congruent.
2. Determine whether corresponding sides are proportional by checking if their ratios are equal.
**3. State which similarity test (AA, SSS, SAS) can be used to determine if the triangles are similar.**
4. If the triangles are similar, complete the similarity statement. If they aren't, write "not similar".

1.

$\triangle EDC \sim$ _____

2.

$\triangle ABC \sim$ _____

3.

$\triangle PQR \sim$ _____

4.

$\triangle KLM \sim$ _____

5.

$\triangle WVU \sim$ _____

6.

$\triangle ABE \sim$ _____

7.

$\triangle DEF \sim$ _____

8.

$\triangle RQP \sim$ _____

9.

$\triangle FGH \sim$ _____
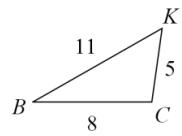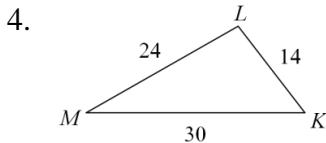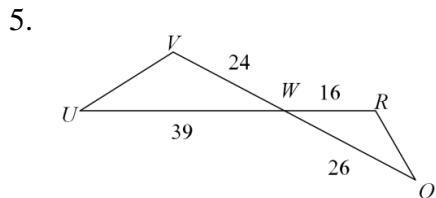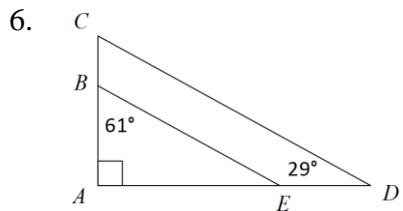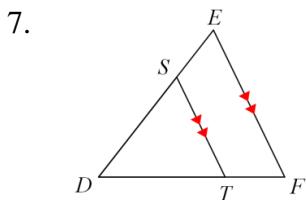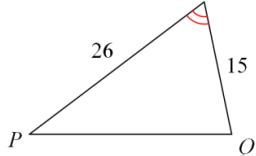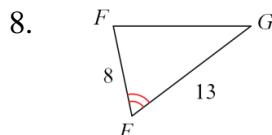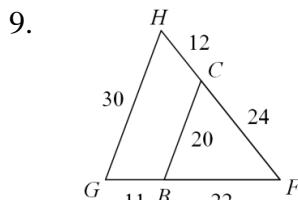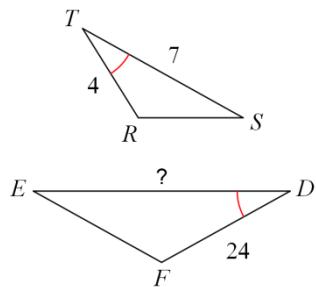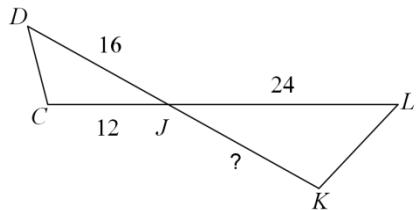
Find each missing length.
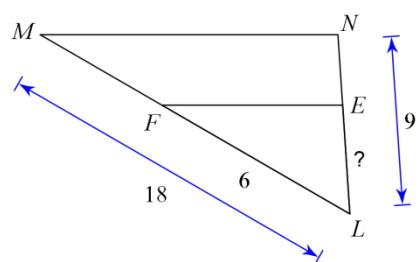
10. △RST ~ △FED
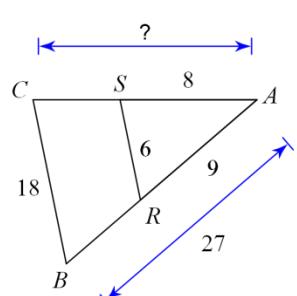
11. △JCD ~ △JKL
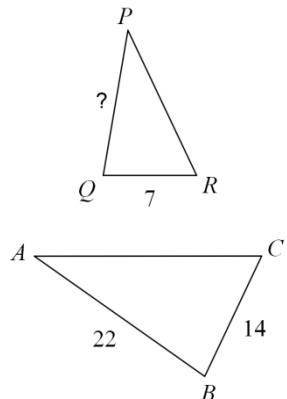
12. △LEF ~ △LNM
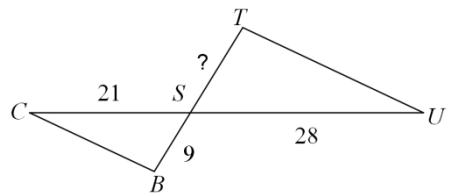
13. △RAS ~ △BAC

14. △PQR ~ △ABC

15. △SBC ~ △STU

Use the diagram at the right to complete each statement.

16. △CAB ~ _____

17. $\dfrac{AE}{AC} = \dfrac{?}{AB}$

18. $\dfrac{3}{9} = \dfrac{x}{?}$

19. $x =$ _____

20. The scale factor of △ABC to △ADE is _____