Name _____ **Hour** _____

Are the triangles similar? If they are similar, write a similarity statement and state the postulate or theorem that justifies your answer. If they are not similar, explain why.

1.

2.

3.

4.

5.

6.

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8.

9.

10.

11.

12.
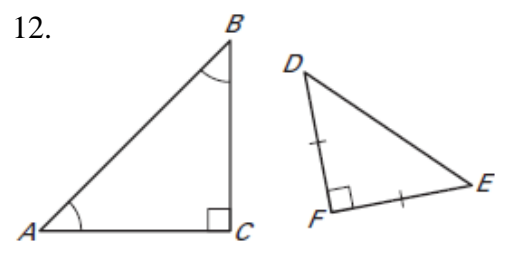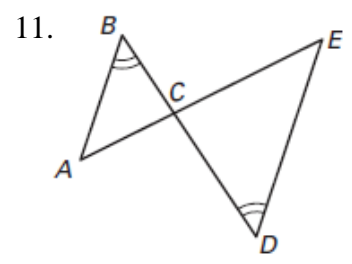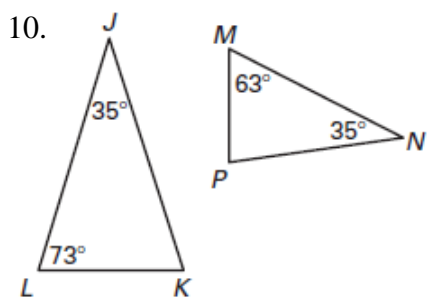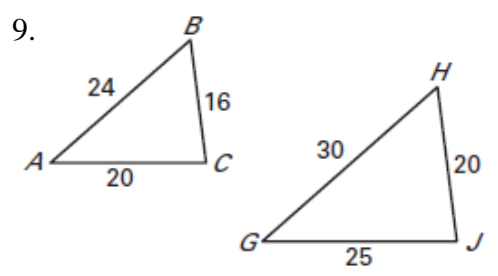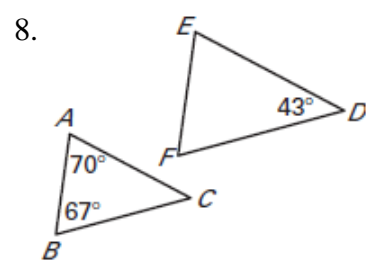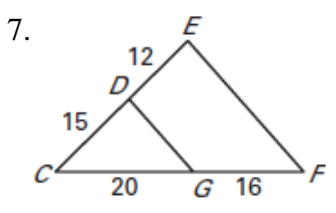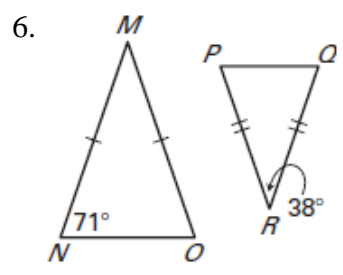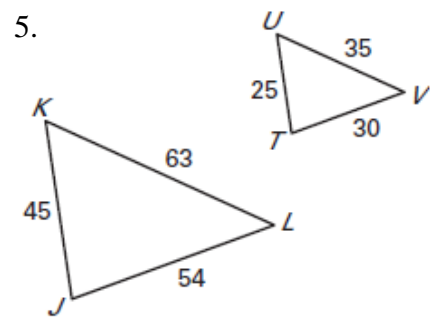
In the diagram, $\Delta IRT \sim \Delta GNA$.

13. Find the scale factor of ΔAGN to ΔTIR.

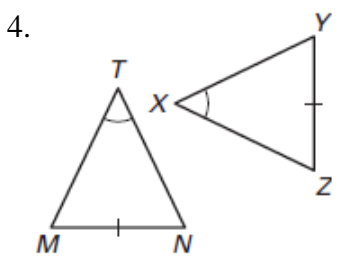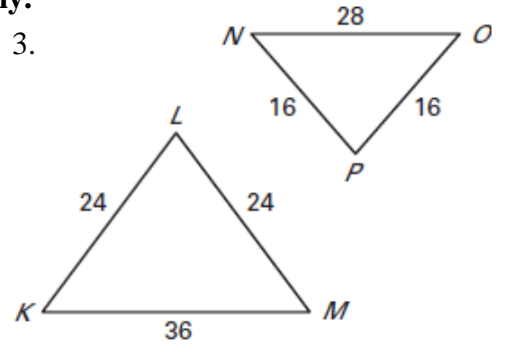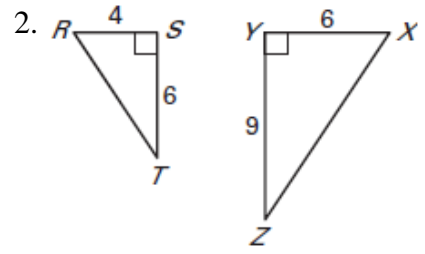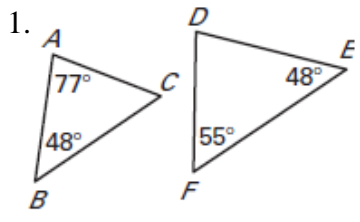14. Find the length of $\overline{IR}$.
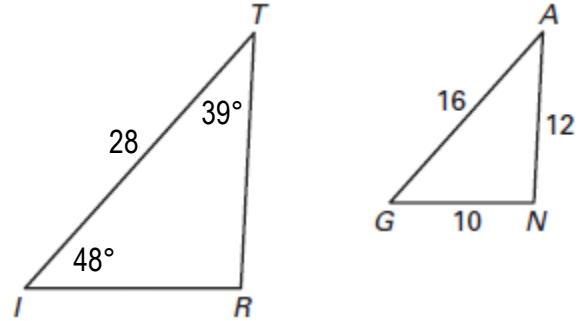
15. Find the length of $\overline{RT}$.

16. Find the measure of $\angle N$.

17. Find the perimeter of ΔAGN.

18. Find the perimeter of ΔTIR.

19. Find the ratio of the perimeter of ΔTIR to the perimeter of ΔAGN.

Complete the statement.

20. If $\Delta FNT \sim \Delta AKV$, then $\angle T \cong$ _____.

21. If $\Delta QLC \sim \Delta YOB$, then $\angle O \cong$ _____.

22. If $\Delta PEX \sim \Delta HRM$, then $\dfrac{EX}{RM} = \dfrac{EP}{\qquad}$.

23. If $\Delta DIW \sim \Delta SGZ$, then $\dfrac{SZ}{DW} = \dfrac{ZG}{\qquad}$.

The two triangles are similar. Find the scale factor and the value of x.

24.

25.

26.

27.