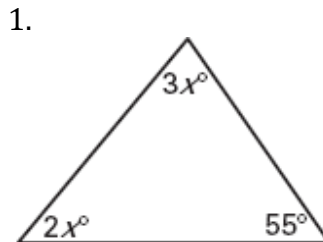
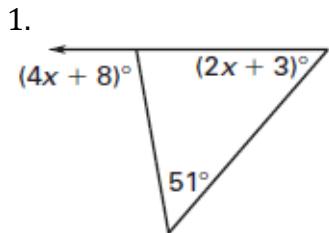


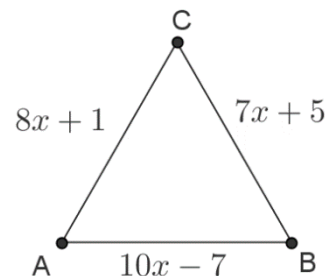
Solve for x.



2. Describe the requirements for a triangle to be classified as acute, right, obtuse, or equiangular.

3. Describe the requirements for a triangle to be classified as scalene, isosceles, or equilateral.

4. Given: $\overline{BC} \cong \overline{AB}$
 a. Solve for x.

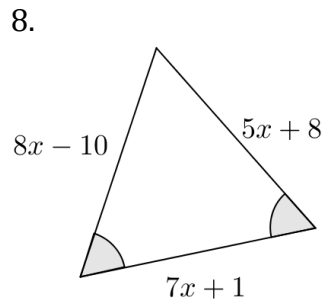
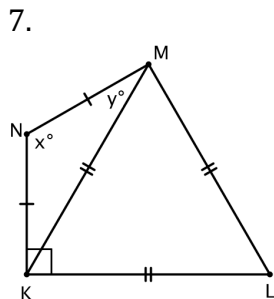
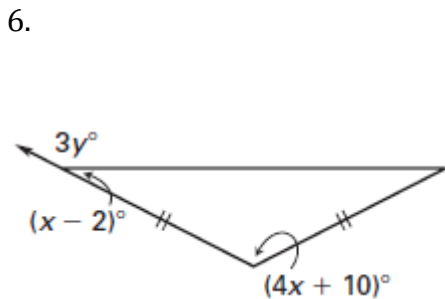


b. Is $\triangle ABC$ equilateral? Explain your reasoning.

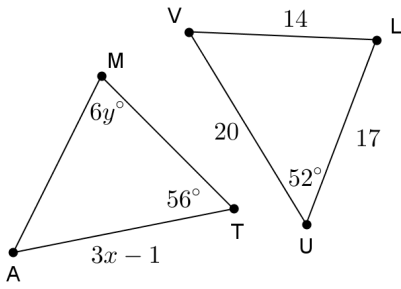
5. If $\triangle BDG \cong \triangle KMF$, $BD = 12$ feet, $m\angle D = 37^\circ$, and $m\angle F = 24^\circ$, which of the following statements is **false**?

- a) $BG = KF$ b) $\angle G \cong \angle F$ c) $m\angle B = 119^\circ$ d) $DB = FK$

Solve for each variable.



9. Given $\Delta LUV \cong \Delta MAT$, find the value of x and y .

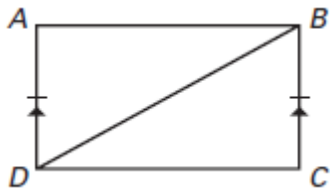


Decide whether it is possible to prove the triangles are congruent.

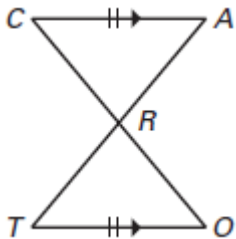
If yes, **mark any additional information required on the diagram**, state the congruence relationship and the postulate or theorem used to prove the triangles are congruent.

If not, write "Not \cong " and provide a reason why the triangles cannot be proved congruent.

10.

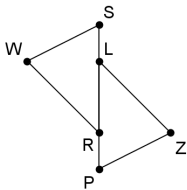


12.

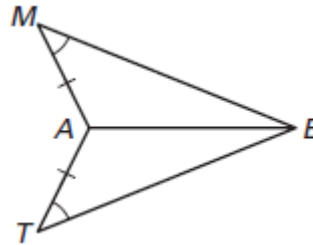


14. Given: $\overline{ZP} \cong \overline{WS}$
 $\overline{LP} \cong \overline{RS}$
 $\overline{ZP} \parallel \overline{WS}$

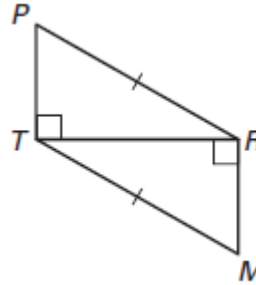
Prove: $\Delta ZPL \cong \Delta WSR$



11.

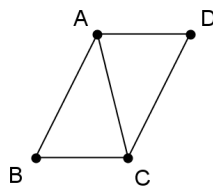


13.



15. Given: $\overline{AB} \cong \overline{CD}$
 $\overline{AB} \parallel \overline{CD}$

Prove: $\angle B \cong \angle D$

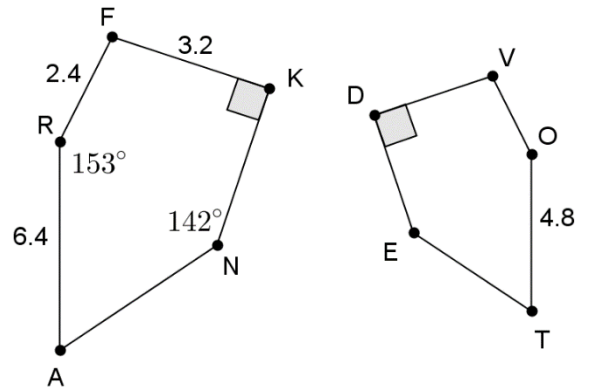


16. Given $FRANK \sim VOTED$, find the value of:

a. DV

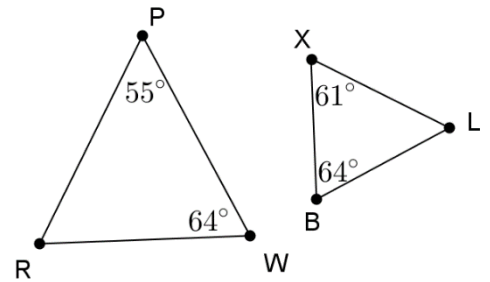
b. $m\angle O$

c. If $TE = 4$ then $NA =$

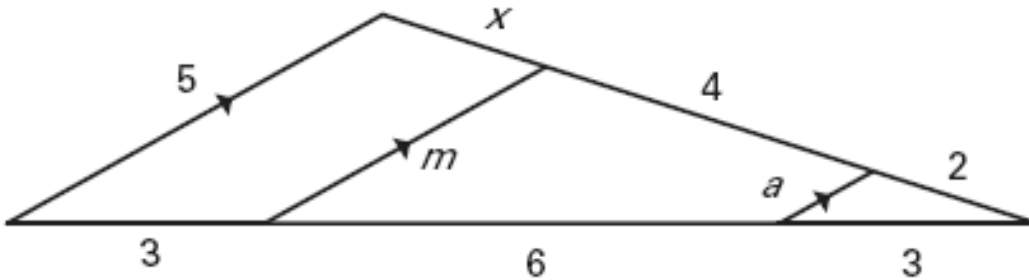


17. The two triangles shown below are similar. Complete the similarity statement and explain why the triangles are similar.

$\triangle RPW \sim$ _____

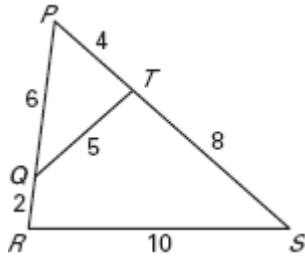


18. Solve for a , m , and x in the figure.

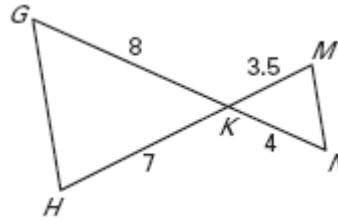


19. Determine if it is possible to prove the triangles are similar. If yes, state the postulate or theorem that can be used to prove the two triangles similar and explain how you know that postulate or theorem works. If the triangles cannot be shown to be similar, explain your reasoning.

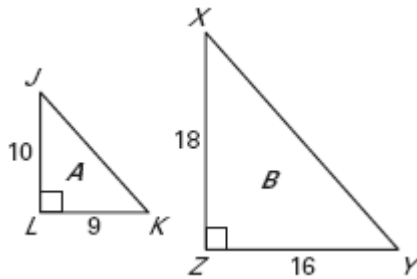
a.



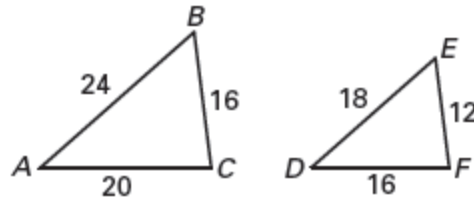
b.



c.

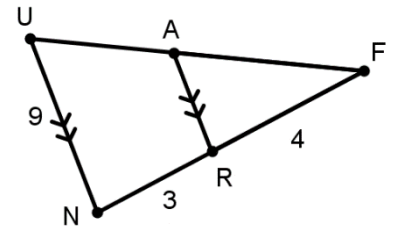


d.



20. Use the image at the right for the following:

- Write a similarity statement
- Explain why the triangles are similar
- Determine the scale factor
- Solve for AR



21. Construct the polygon $A = (-2, -3), B = (-1, 2), C = (3, 5)$, and $D = (3, -2)$. Perform the dilation of $ABCD \rightarrow EFGH$ from the origin with the scale factor of $5/3$.

