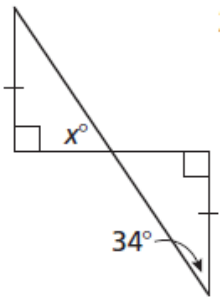
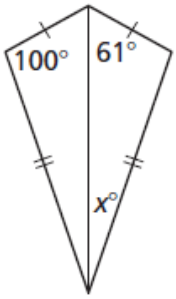
Find the value of *x*.

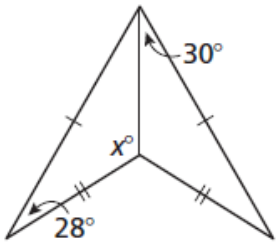
1.



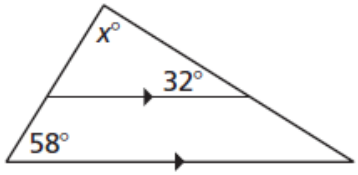
2.



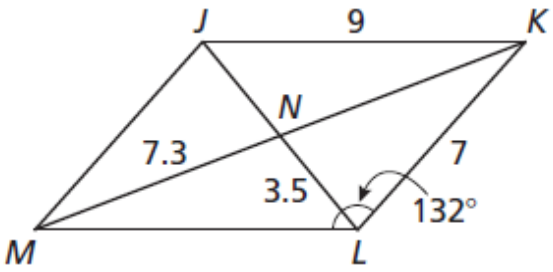
3.



4.



Find the indicated measure in $\square JKLM$.



1. *ML* **2.** *MJ* **3.** *JN* **4.** *MK*

5. $m\angle MJK$ **6.** $m\angle LMJ$ **7.** $m\angle MKL$ **8.** $m\angle LJM$

Essential Question

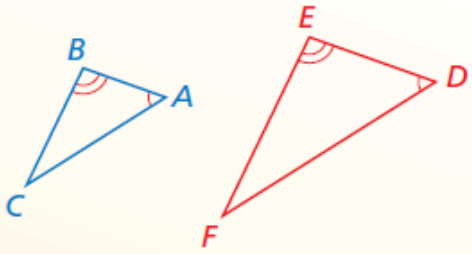
What can you conclude about two triangles when you know that two pairs of corresponding angles are congruent?

Theorem

Theorem 8.3 Angle-Angle (AA) Similarity Theorem

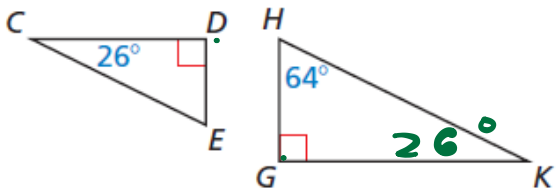
If two angles of one triangle are congruent to two angles of another triangle, then the two triangles are similar.

If $\angle A \cong \angle D$ and $\angle B \cong \angle E$, then $\triangle ABC \sim \triangle DEF$.



Proof p. 428

Determine whether the triangles are similar. If they are, write a similarity statement. Explain your reasoning.



$180 - 154 = 26$

$\angle D \cong \angle G$

$m\angle C = m\angle K$

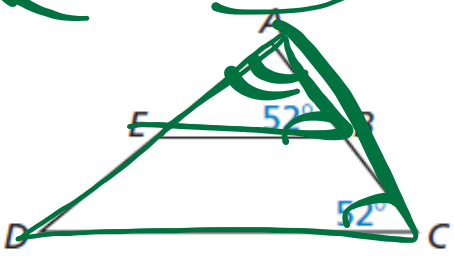
$\angle C \cong \angle K$

By AA~

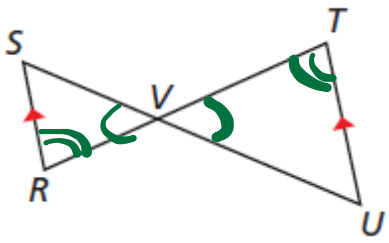
$\triangle DEC \sim \triangle GHK$

Show that the two triangles are similar.

a. $\triangle ABE \sim \triangle ACD$



b. $\triangle SVR \sim \triangle UVT$



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A flagpole c
woman star
is 40 inches