Name _____ Class _____ Date _____

Reteaching 4-1

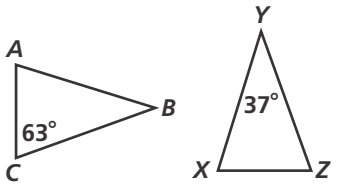
Congruent Figures and Corresponding Parts

OBJECTIVE: Recognizing congruent figures and their corresponding parts

MATERIALS: None

Example

$\triangle ABC \cong \triangle XYZ$. Find $m\angle A$.



Because the triangles are congruent, all corresponding parts are congruent.

Sides: $\overline{AB} \cong \overline{XY}$, $\overline{BC} \cong \overline{YZ}$, $\overline{AC} \cong \overline{XZ}$

Angles: $\angle A \cong \angle X$, $\angle B \cong \angle Y$, $\angle C \cong \angle Z$

Because $\angle B \cong \angle Y$, $m\angle B \cong 37$.

Use the Triangle Angle-Sum Theorem to find $m\angle A$.

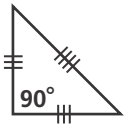
$$\begin{aligned} m\angle A + m\angle B + m\angle C &= 180 \\ m\angle A + 37 + 63 &= 180 \\ m\angle A + 100 &= 180 \\ m\angle A &= 80 \end{aligned}$$

Exercises

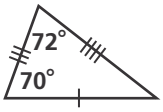
Match each triangle in the first column with a congruent triangle in the second column.

1.

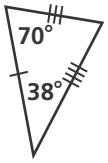
2.



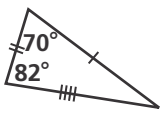
3.



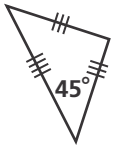
a.



b.

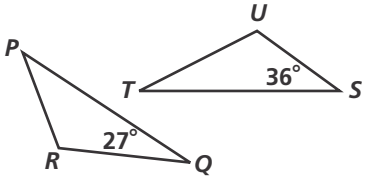


c.



Find the measure of the indicated angle.

4. $\triangle PQR \cong \triangle STU$. Find $m\angle U$.



5. $EFGH \cong JKLM$. Find $m\angle M$.