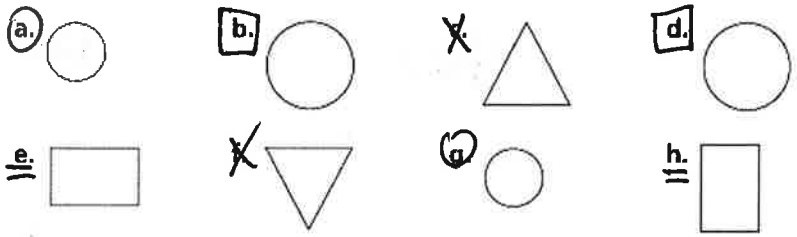
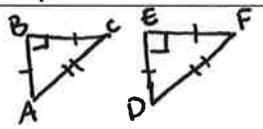
Lesson 7-6 Notes
Congruent Figures

1. Match the figures with the same size and shape.

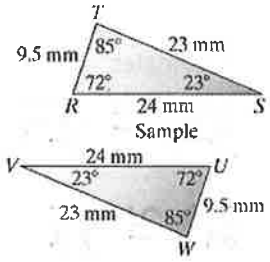


2. How could you check that the figures you matched above are really the same size and shape?

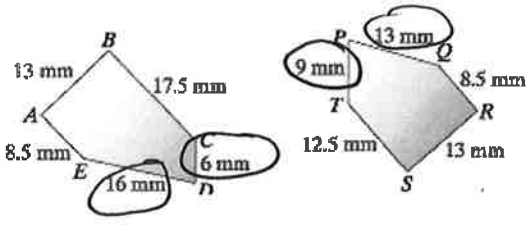
3. Suppose you trace a polygon and match your tracing with another polygon that has the same size and shape. What would be true of the matching angles and segments?

Vocabulary Term	Definition	Example	Symbol
Congruent	Having the same size and shape. Corresponding parts have equal measures.		$\triangle ABC \cong \triangle DEF$

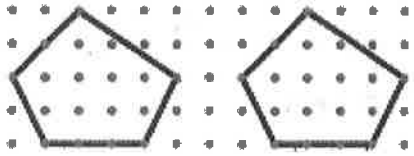
This means that the angles in the same spot must be the same size and the length of the sides in the same spot must be the same length!



Are the polygons congruent?

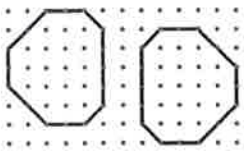


NO

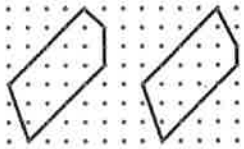


YES

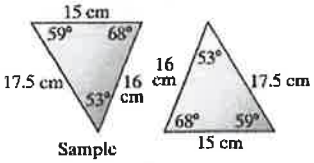
Congruent or Not Congruent?



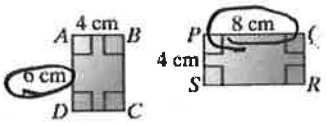
YES



NO



YES

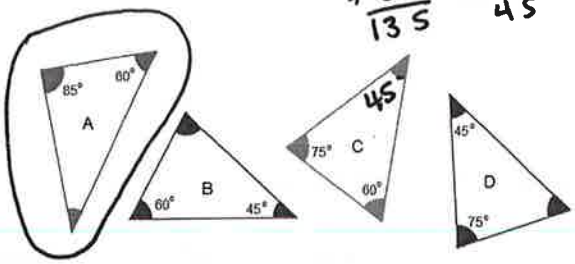


NO

Circle the triangle that is not congruent to the other three?

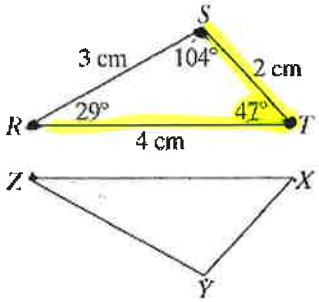
75 + 60 = 135

180 − 135 = 45



You Try!

The triangles to the right are congruent.



a) List six congruent corresponding parts of the triangles.

$\angle SRT \cong \angle YZX$

$\overline{RS} \cong \overline{ZY}$

$\angle STR \cong \angle ZXY$

$\overline{ST} \cong \overline{YX}$

$\angle TSR \cong \angle XYZ$

$\overline{RT} \cong \overline{XZ}$

b) Find the measure of $\overline{ZY}$ and $\angle X$.

ZY = 3 cm

X = 47°