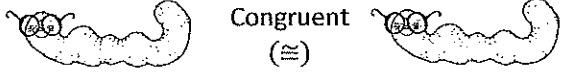
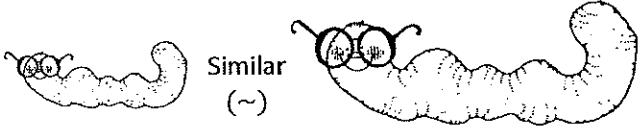


5.1 Apply Congruence to Triangles

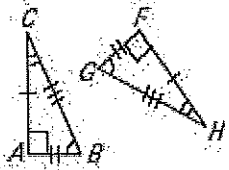
Vocabulary

Congruent figures  Congruent (\cong)

 Similar (\sim)

Example 1: Identify congruent parts

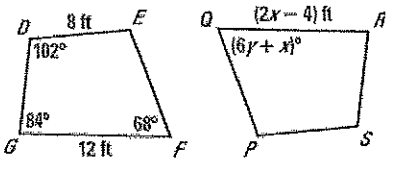
1. Identify all pairs of congruent corresponding parts. Then write a congruence statement.



| | | |
|---------------------|---------------------|----------------------|
| Sides | Angles | Congruence Statement |
| _____ \cong _____ | _____ \cong _____ | _____ \cong _____ |
| _____ \cong _____ | _____ \cong _____ | _____ \cong _____ |
| _____ \cong _____ | _____ \cong _____ | _____ \cong _____ |

Example 2: Use properties of congruent figures

1. $DEFG \cong SPQR$. Find the values of x and y .



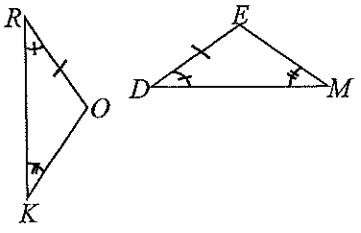
WRITING A CONGRUENCE STATEMENT

- Pick a marked angle (or mark two \cong angles)
- Name 1st triangle in any order (start with the marked angle)
- Match the second triangle (start with the corresponding marked angle)

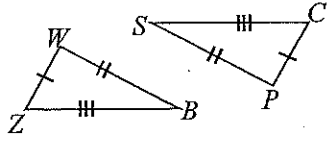
NOTE: Order matters!!

Example 3: Congruence statements

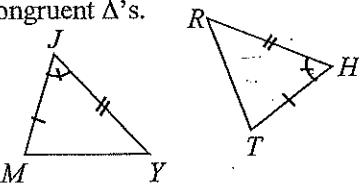
1. Write a congruence statement for the congruent triangles below.



2. Write a congruence statement for the congruent triangles below.

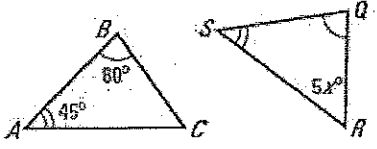


3. Choose the correct congruence statement for the congruent Δ 's.



A. $\Delta MYJ \cong \Delta RTH$ B. $\Delta YJM \cong \Delta RHT$
 C. $\Delta JYM \cong \Delta HTR$ D. $\Delta MYJ \cong \Delta HRT$

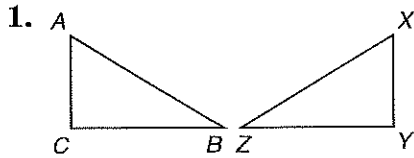
4. Write a congruence statement for the two congruent triangles shown below. Then solve for x .



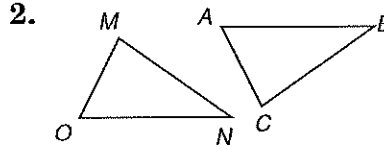
Skills Practice

Congruent Triangles

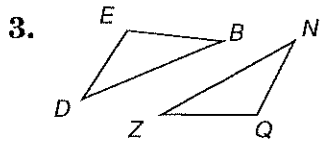
Name the congruent angles and sides for each pair of congruent triangles. Then draw arcs and slash marks to show the congruent angles and sides.



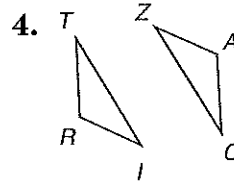
$$\triangle ACE \cong \triangle XYZ$$



$$\triangle MNO \cong \triangle CBA$$

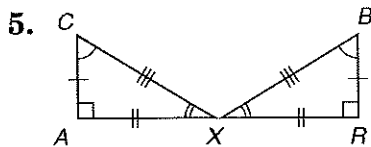


$$\triangle BDE \cong \triangle ZNQ$$

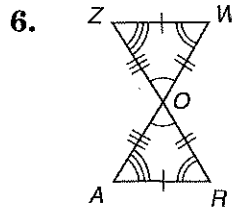


$$\triangle TRI \cong \triangle ZAC$$

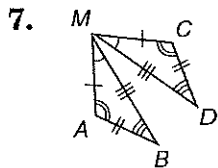
Complete each congruence statement.



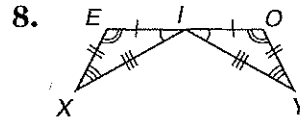
$$\triangle CAX \cong \triangle \underline{\hspace{1cm}} ?$$



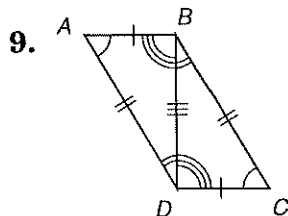
$$\triangle ZWO \cong \triangle \underline{\hspace{1cm}} ?$$



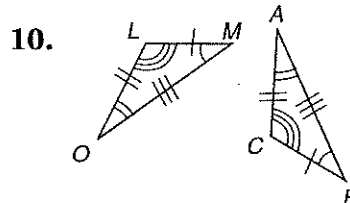
$$\triangle MAB \cong \triangle \underline{\hspace{1cm}} ?$$



$$\triangle EIX \cong \triangle \underline{\hspace{1cm}} ?$$



$$\triangle ABD \cong \triangle \underline{\hspace{1cm}} ?$$



$$\triangle LMO \cong \triangle \underline{\hspace{1cm}} ?$$