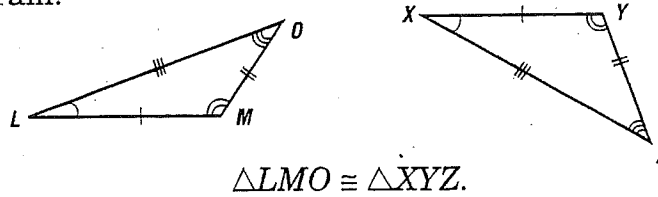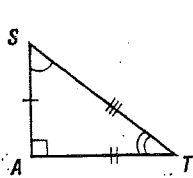## Congruent Triangles

When two figures have exactly the same shape and size, they are said to be congruent. For two congruent triangles there are three pairs of corresponding (matching) sides and three pairs of corresponding angles. To write a correspondence statement about congruent triangles, you should name corresponding angles in the same order. Remember that congruent parts are marked by identical markings.

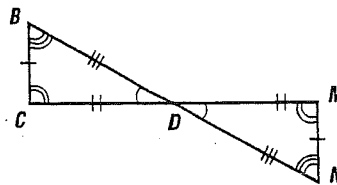**Example:** Write a correspondence statement for the triangles in the diagram.

$\triangle LMO \cong \triangle XYZ.$

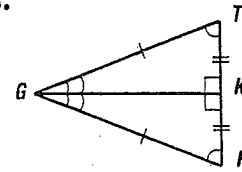**Complete each correspondence statement.**

1.

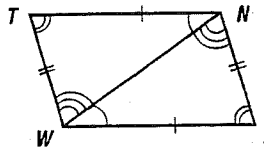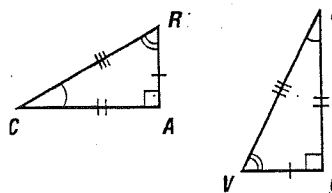$\triangle SAT \cong$

2.

$\triangle BCD \cong$

3.

$\triangle GHK \cong$

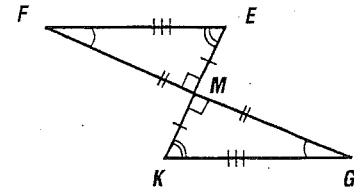**Write a correspondence statement for the congruent triangles in each diagram.**

4.

5.

6.

Draw triangles △EDG and △QRS. Label the corresponding parts if △EDG ≅ △QRS. Then complete each statement.

7. $\angle E \cong$

8. $\overline{DG} \cong$

9. $\angle EDG \cong$

10. $\overline{GE} \cong$

11. $\overline{ED} \cong$

12. $\angle EGD \cong$

4-3 **Practice Worksheet**

Congruent Triangles

Label the corresponding parts if $\triangle RST \cong \triangle ABC$.
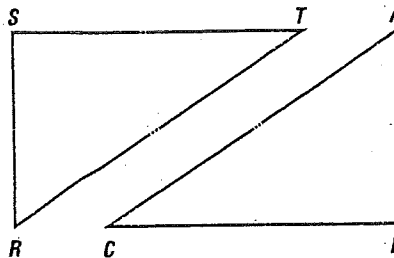**Use the figures to complete each statement.**

1. $\angle C \cong \underline{\ ?\ }$

2. $\angle R \cong \underline{\ ?\ }$

3. $\overline{AC} \cong \underline{\ ?\ }$

4. $\overline{ST} \cong \underline{\ ?\ }$
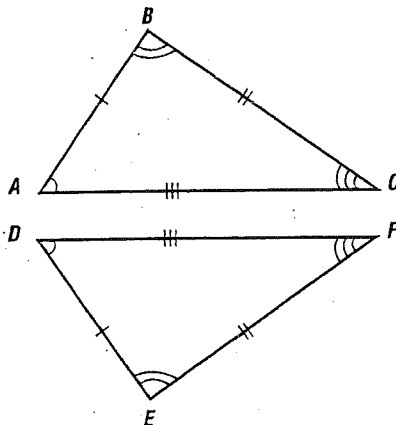
5. $\overline{RS} \cong \underline{\ ?\ }$
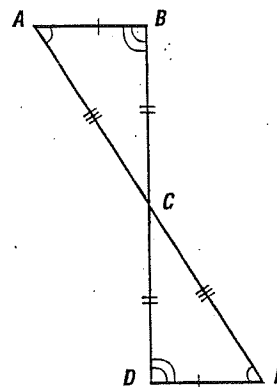
6. $\angle B \cong \underline{\ ?\ }$

Write a congruence statement for the congruent triangles in each diagram.

7.

8.

9. Given $\triangle ABC \cong \triangle DEF$, $AB = 15$, $BC = 20$, $AC = 25$, and $FE = 3x - 7$, find x.

10. Given $\triangle ABC \cong \triangle DEF$, $DE = 10$, $EF = 13$, $DF = 16$, and $AC = 4x - 8$, find x.