

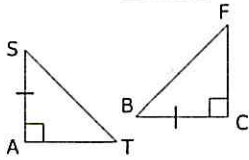
# Worksheet 4.2 Applying Congruence in Triangles

Name \_\_\_\_\_

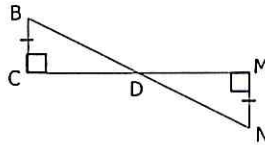
Period \_\_\_\_\_

## I. Complete each correspondence statement.

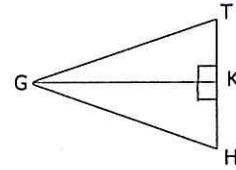
1)  $\triangle SAT \cong \triangle$  \_\_\_\_\_



2)  $\triangle BCD \cong \triangle$  \_\_\_\_\_

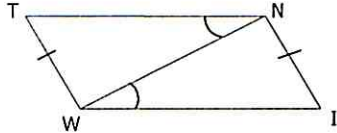


3)  $\triangle GHK \cong \triangle$  \_\_\_\_\_

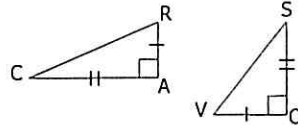


## II. Write a congruence statement for each pair of congruent triangles.

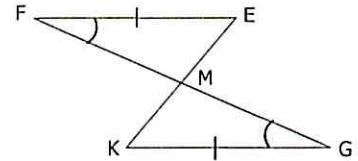
4)  $\triangle$  \_\_\_\_\_  $\cong \triangle$  \_\_\_\_\_



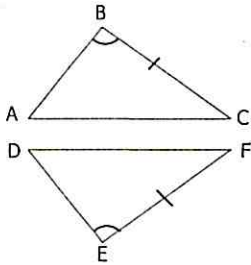
5)  $\triangle$  \_\_\_\_\_  $\cong \triangle$  \_\_\_\_\_



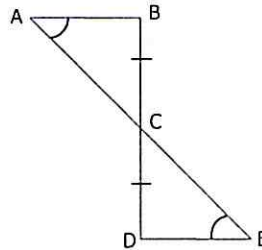
6)  $\triangle$  \_\_\_\_\_  $\cong \triangle$  \_\_\_\_\_



7)  $\triangle$  \_\_\_\_\_  $\cong \triangle$  \_\_\_\_\_



8)  $\triangle$  \_\_\_\_\_  $\cong \triangle$  \_\_\_\_\_



## III. Draw $\triangle EDG$ and $\triangle QRS$ . Label the corresponding parts if $\triangle EDG \cong \triangle QRS$ . 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)  $\angle EGD \cong$  \_\_\_\_\_

## IV. Label the corresponding part if $\triangle RST \cong \triangle ABC$ . Use the figures to complete each statement.

13)  $\angle ACB \cong$  \_\_\_\_\_

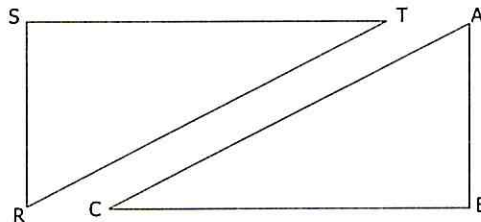
14)  $\angle TSR \cong$  \_\_\_\_\_

15)  $\overline{AC} \cong$  \_\_\_\_\_

16)  $\overline{ST} \cong$  \_\_\_\_\_

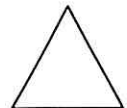
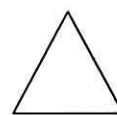
17)  $\overline{RS} \cong$  \_\_\_\_\_

18)  $\angle CBA \cong$  \_\_\_\_\_



## V. Find the value of "x".

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



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

