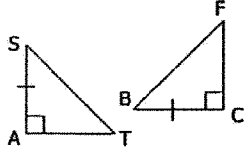


Worksheet 4.2 Applying Congruence in Triangles

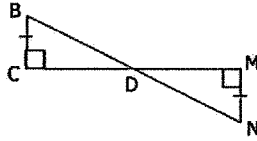
Name Key Period _____

I. Complete each correspondence statement.

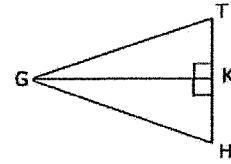
1) $\triangle SAT \cong \triangle FCB$



2) $\triangle BCD \cong \triangle NMD$

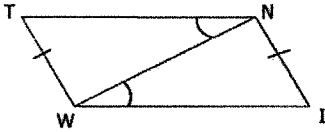


3) $\triangle GHK \cong \triangle GTK$

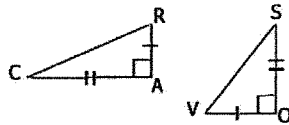


II. Write a congruence statement for each pair of congruent triangles.

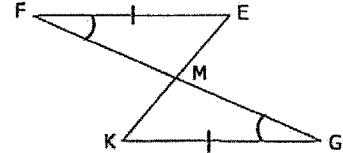
4) $\triangle NWT \cong \triangle WIN$



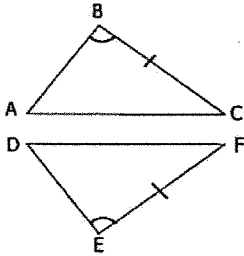
5) $\triangle RAC \cong \triangle VOS$



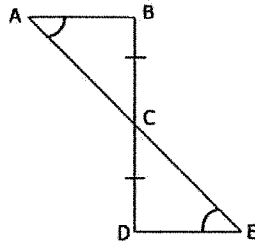
6) $\triangle EMF \cong \triangle KMG$



7) $\triangle ABC \cong \triangle DEF$



8) $\triangle ABC \cong \triangle EDC$



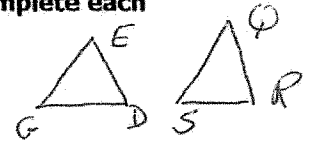
III. Draw $\triangle EDG$ and $\triangle QRS$. Label the corresponding parts if $\triangle EDG \cong \triangle QRS$. Then complete each statement.

7) $\angle E \cong \angle Q$

8) $\overline{DG} \cong \overline{RS}$

9) $\angle EDG \cong \angle QRS$

10) $\overline{GE} \cong \overline{SQ}$



11) $\overline{ED} \cong \overline{QR}$

12) $\angle EGD \cong \angle QSR$

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

13) $\angle ACB \cong \angle RTS$

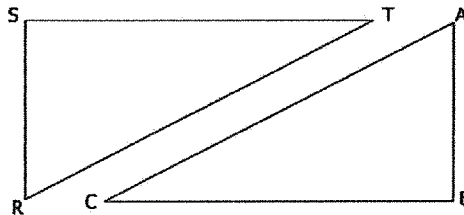
14) $\angle TSR \cong \angle CBA$

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

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

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

18) $\angle CBA \cong \angle TSR$

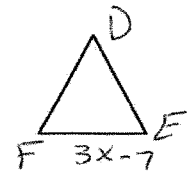
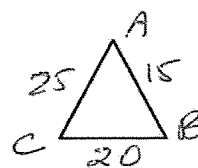


V. Find the value of "x".

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

$3x-7=20$
 $3x=27$

$x=9$



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

$4x-8=16$
 $4x=24$

$x=6$

