

# Geometry

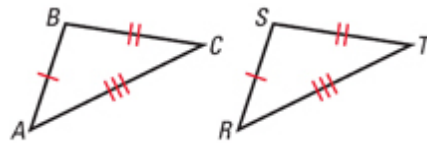
## Notes Section 44

### Prove Triangles Congruent by SSS

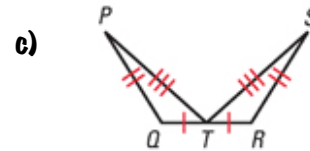
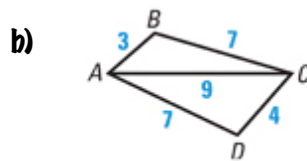
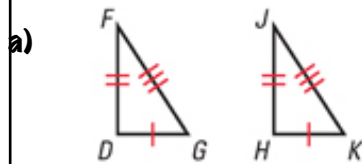
#### POSTULATE 19 Side-Side-Side (SSS) Congruence Postulate

If three sides of one triangle are congruent to three sides of a second triangle, then the two triangles are congruent.

If Side  $\overline{AB} \cong \overline{RS}$ ,  
 Side  $\overline{BC} \cong \overline{ST}$ , and  
 Side  $\overline{CA} \cong \overline{TR}$ ,  
 then  $\triangle ABC \cong \triangle RST$ .



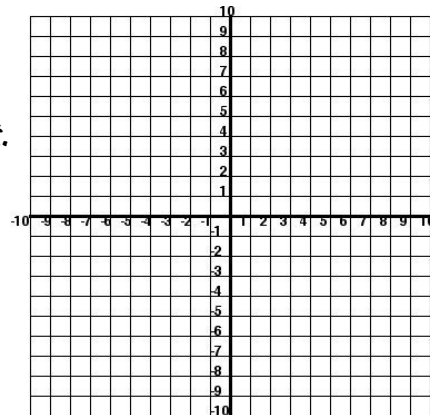
**EXAMPLE 1** Decide whether the congruence statement is TRUE. Explain.



**EXAMPLE 2**  $\triangle JKL$  has vertices  $J(-3;2)$ ,  $K(0;2)$  and  $L(-3;8)$ .

$\triangle RST$  has vertices  $R(1;0)$ ,  $S(1;3)$  and  $T(4;0)$ .

Graph the triangles and show they are congruent.



**EXAMPLE 3** Explain why figure A is more stable than figure B.

