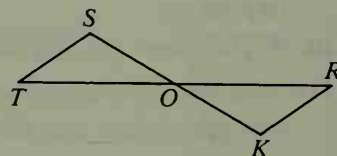


Written Exercises

Suppose $\triangle BIG \cong \triangle CAT$. Complete.

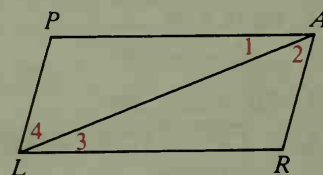
- A** 1. $\angle G \cong \underline{\hspace{1cm}}$ 2. $\underline{\hspace{1cm}} = m\angle A$ 3. $BI = \underline{\hspace{1cm}}$
 4. $\underline{\hspace{1cm}} \cong \overline{AT}$ 5. $\triangle IGB \cong \underline{\hspace{1cm}}$ 6. $\underline{\hspace{1cm}} \cong \triangle CTA$
7. If $\triangle DEF \cong \triangle RST$, $m\angle D = 100$, and $m\angle F = 40$, name four congruent angles.
8. Is the statement "Corresponding parts of congruent triangles are congruent" based on a definition, postulate, or theorem?
9. Suppose $\triangle LXR \cong \triangle FNE$. List six congruences that can be justified by the following reason: Corr. parts of $\cong \triangle$ are \cong .
10. The two triangles shown are congruent. Complete.

- a. $\triangle STO \cong \underline{\hspace{1cm}}$
 b. $\angle S \cong \underline{\hspace{1cm}}$ because $\underline{\hspace{1cm}}$.
 c. $\overline{SO} \cong \underline{\hspace{1cm}}$ because $\underline{\hspace{1cm}}$.
 Then point O is the midpoint of $\underline{\hspace{1cm}}$.
 d. $\angle T \cong \underline{\hspace{1cm}}$ because $\underline{\hspace{1cm}}$.
 Then $\overline{ST} \parallel \overline{RK}$ because $\underline{\hspace{1cm}}$.



11. The two triangles shown are congruent. Complete.

- a. $\triangle PAL \cong \underline{\hspace{1cm}}$
 b. $\overline{PA} \cong \underline{\hspace{1cm}}$
 c. $\angle 1 \cong \underline{\hspace{1cm}}$ because $\underline{\hspace{1cm}}$.
 Then $\overline{PA} \parallel \underline{\hspace{1cm}}$ because $\underline{\hspace{1cm}}$.
 d. $\angle 2 \cong \underline{\hspace{1cm}}$ because $\underline{\hspace{1cm}}$.
 Then $\underline{\hspace{1cm}} \parallel \underline{\hspace{1cm}}$ because $\underline{\hspace{1cm}}$.



Plot the given points on graph paper. Draw $\triangle FAT$. Locate point C so that $\triangle FAT \cong \triangle CAT$.

12. $F(1, 2)$ $A(4, 7)$ $T(4, 2)$ 13. $F(7, 5)$ $A(-2, 2)$ $T(5, 2)$

Plot the given points on graph paper. Draw $\triangle ABC$ and $\triangle DEF$. Copy and complete the statement $\triangle ABC \cong \underline{\hspace{1cm}}$.

- B** 14. $A(-1, 2)$ $B(4, 2)$ $C(2, 4)$ 15. $A(-7, -3)$ $B(-2, -3)$ $C(-2, 0)$
 $D(5, -1)$ $E(7, 1)$ $F(10, -1)$ $D(0, 1)$ $E(5, 1)$ $F(0, -2)$
16. $A(-3, 1)$ $B(2, 1)$ $C(2, 3)$ 17. $A(1, 1)$ $B(8, 1)$ $C(4, 3)$
 $D(4, 3)$ $E(6, 3)$ $F(6, 8)$ $D(3, -7)$ $E(5, -3)$ $F(3, 0)$

Plot the given points on graph paper. Draw $\triangle ABC$ and \overline{DE} . Find two locations of point F such that $\triangle ABC \cong \triangle DEF$.

18. $A(1, 2)$ $B(4, 2)$ $C(2, 4)$ $D(6, 4)$ $E(6, 7)$
 19. $A(-1, 0)$ $B(-5, 4)$ $C(-6, 1)$ $D(1, 0)$ $E(5, 4)$