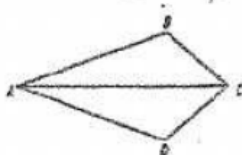


Practice Worksheet

Tests for Congruent Triangles

For each figure, mark all congruent parts. Then complete the prove statement and identify the postulate that can be used to prove the triangles congruent.

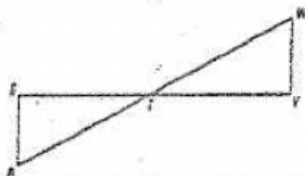
1.



Given: $\overline{AB} \cong \overline{AD}$
 $\overline{BC} \cong \overline{DC}$

Prove: $\triangle BCA \cong \triangle DCA$

2.



Given: $\angle S$ and $\angle V$ are right angles.
 T bisects \overline{SU} .

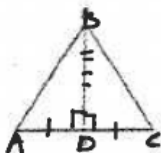
Prove: $\triangle STU \cong \triangle VWU$

Write a two-column proof.

3. Given: $\overline{ED} \perp \overline{AC}$

D bisects \overline{AC} .

Prove: $\overline{AB} \cong \overline{CB}$

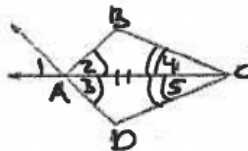


- | Statements | Reasons |
|---|--------------------------------------|
| a. D bisects \overline{AC} | a. Given |
| b. $\overline{ED} \perp \overline{AC}$ | b. Def of B. bisector |
| c. $\angle ADB$ and $\angle CDB$ are right angles | c. Definition of Perpendicular lines |
| d. $\angle ADB \cong \angle CDB$ | d. All Right \angle 's \cong |
| e. $\overline{BD} \cong \overline{BD}$ | e. Reflexive prop |
| f. $\triangle ABD \cong \triangle CBD$ | f. SAS |
| g. $\overline{AB} \cong \overline{CB}$ | g. CPCTC |

4. Given: $\angle 1 \cong \angle 2$

$\angle 4 \cong \angle 5$

Prove: $\overline{BC} \cong \overline{DC}$



- | Statements | Reasons |
|--|-------------------------|
| a. $\angle 1 \cong \angle 2$ | a. Given |
| b. $\angle 1 \cong \angle 3$ | b. Vertical \angle 's |
| c. $\angle 2 \cong \angle 3$ | c. Substitution prop |
| d. $\overline{AC} \cong \overline{AC}$ | d. Reflexive prop |
| e. $\angle 4 \cong \angle 5$ | e. Given |
| f. $\triangle ABC \cong \triangle ADC$ | f. ASA |
| g. $\overline{BC} \cong \overline{DC}$ | g. CPCTC |