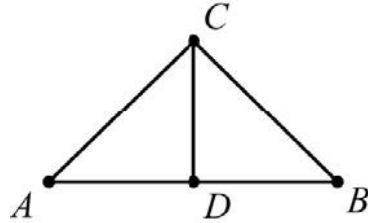## SAMPLE ITEMS

1. In this diagram, $\overline{CD}$ is the perpendicular bisector of $\overline{AB}$. The two-column proof shows that $\overline{AC}$ is congruent to $\overline{BC}$.


Step	Statement	Justification
1	$\overline{CD}$ is the perpendicular bisector of $\overline{AB}$.	Given
2	$\overline{AD} \cong \overline{BD}$	Definition of bisector
3	$\overline{CD} \cong \overline{CD}$	Reflexive Property of Congruence
4	$\angle ADC$ and $\angle BDC$ are right angles.	Definition of perpendicular lines
5	$\angle ADC \cong \angle BDC$	All right angles are congruent.
6	$\triangle ADC \cong \triangle BDC$	?
7	$\overline{AC} \cong \overline{BC}$	CPCTC

Which of the following would justify Step 6?

A. AAS
B. ASA
C. SAS
D. SSS

Correct Answer: C

2. In this diagram, *STU* is an isosceles triangle where $\overline{ST}$ is congruent to $\overline{UT}$. The paragraph proof shows that ∠*S* is congruent to ∠*U*.
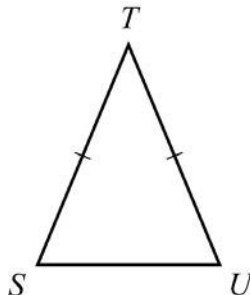
> It is given that $\overline{ST}$ is congruent to $\overline{UT}$. Draw $\overline{TV}$ such that *V* is on $\overline{SU}$ and $\overline{TV}$ bisects ∠*T*. By the definition of an angle bisector, ∠*STV* is congruent to ∠*UTV*. By the Reflexive Property of Congruence, $\overline{TV}$ is congruent to $\overline{TV}$. Triangle *STV* is congruent to triangle *UTV* by SAS. ∠*S* is congruent to ∠*U* by _____?_____.

Which step is missing in the proof?

A. CPCTC
B. Reflexive Property of Congruence
C. Definition of right angles
D. Angle Congruence Postulate

Correct Answer: A