

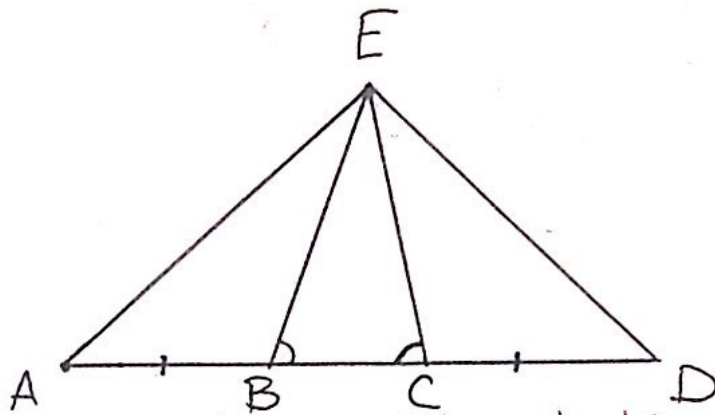
# CHALLENGE PROBLEM

GIVEN:  $\overline{AB} \cong \overline{CD}$

$\angle EBC \cong \angle ECB$

Prove:  $\triangle ABE \cong \triangle DCE$

2-Column Proof:



Statements	Reasons
$\overline{AB} \cong \overline{CD}$	Given
$\angle EBC \cong \angle ECB$	Given
$\overline{AD}$ is a straight line	Given
$\angle ABE \cong \angle ECD$	Supplementary Angles
$\triangle EBC$ is isosceles	Def. of isosceles $\triangle$
$\overline{EB} \cong \overline{EC}$	Property of isosceles $\triangle$
$\triangle ABE \cong \triangle DCE$	SAS $\cong$

Flowchart:

