1. Use the figure below and the following information.

Given: $\overline{A B} \cong \overline{D B}$
$\overline{B C}$ bisects $\Varangle A B D$
Prove: $\overline{A C} \cong \overline{D C}$


Provide the missing reasons in the proof to show that $\overline{A C} \cong \overline{D C}$.

## Statements

a. $\overline{A B} \cong \overline{B D}$
b. $m \angle A B C=m \angle D B C$
c. $\overline{B C} \cong \overline{B C}$
d. $\triangle A B C \cong \triangle D B C$
e. $\overline{A C} \cong \overline{D C}$

## Reasons

Given
?
?
?
?
2. Write a proof using this information.

Given $\overline{A B} \cong \overline{C B}$ and $\overline{B D} \cong \overline{B E}$
Prove $\triangle A B D \cong \triangle C B E$

3. Write a proof using this information.


