

Name: .....

Class: .....



## Check Your Understanding

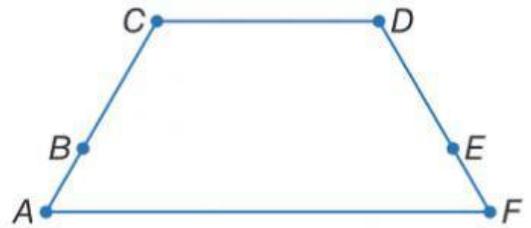
### Example 1

1. Copy and complete the proof.

**Given:**  $\overline{AB} \cong \overline{FE}, \overline{BC} \cong \overline{ED}$

**Prove:**  $\overline{AC} \cong \overline{FD}$

**Proof:**



Statements	Reasons
a. $\overline{AB} \cong \overline{FE}, \overline{BC} \cong \overline{ED}$	a. <input type="text"/>
b. <input type="text"/>	b. Definition of congruent segments
c. $AB + FE = BC + ED$	c. <input type="text"/>
d. <input type="text"/>	d. Segment Addition Postulate
e. $AC = FD$	e. <input type="text"/>
f. $\overline{AC} \cong \overline{FD}$	f. <input type="text"/>

Given

$AB + BC = AC, FE + ED = FD$

Substitution

Definition of Congruence

$AB \cong FE, BC \cong ED$

Addition Property of Equality

