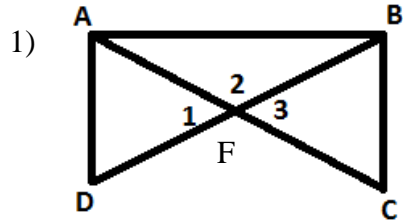


Name: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Class: \_\_\_\_\_

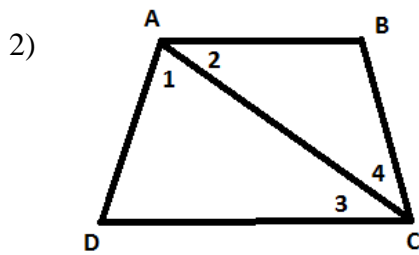
Geometry  
 Unit 8  
 HW 8-5

Using the given information and the diagram write a proof that shows the “Prove” statement is true.



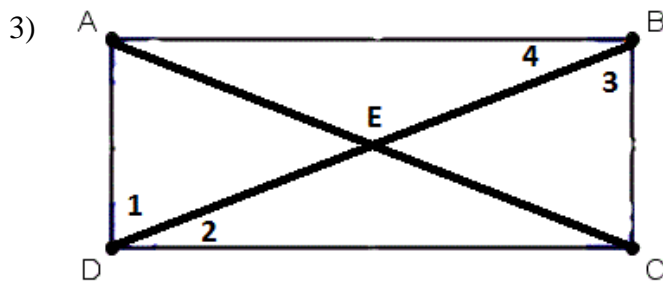
Given:  $\overline{AD} \parallel \overline{BC}$   
 $\overline{DF} \cong \overline{FC}$   
 $\angle D \cong \angle C$

Prove:  $\triangle AFB$  is isos with  $\angle F$  as vertex



Given:  $\angle 2 \cong \angle 3$   
 $\overline{AD} \cong \overline{BC}$

Prove:  $\angle D \cong \angle DCB$

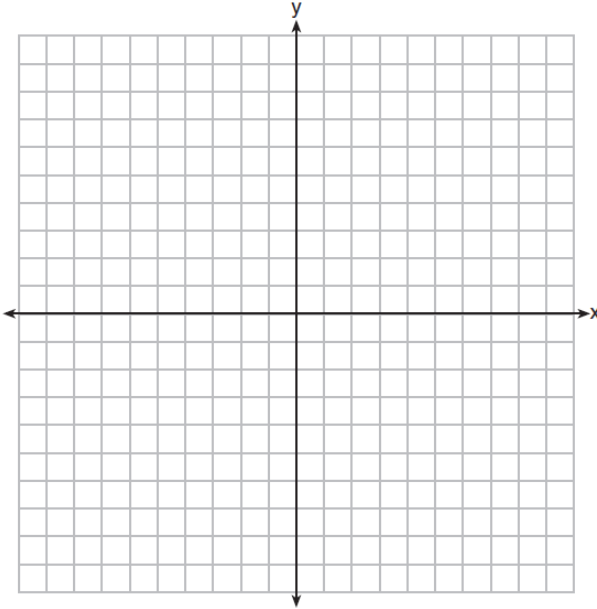


Given:  $\overline{AD} \parallel \overline{BC}$   
 $\overline{AC}$  bisects  $\overline{BD}$   
 $\overline{AD} \perp \overline{DC}$

Prove: ABCD is a rectangle

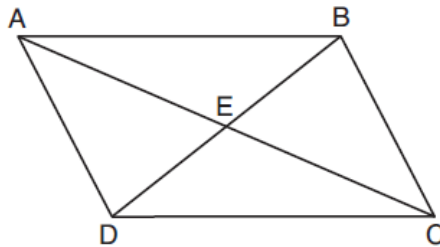
- 4) Triangle  $ABC$  has vertices with  $A(x,3)$ ,  $B(-3,-1)$ , and  $C(-1,-4)$ .

Determine and state a value of  $x$  that would make triangle  $ABC$  a right triangle. Justify why  $\triangle ABC$  is a right triangle.



- 5)

Given: Quadrilateral  $ABCD$  is a parallelogram with diagonals  $\overline{AC}$  and  $\overline{BD}$  intersecting at  $E$



Prove:  $\triangle AED \cong \triangle CEB$