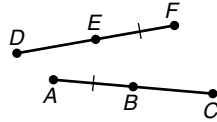


**LESSON**  
**2-6** **Practice B**  
**Geometric Proof**

Write a justification for each step.

**Given:**  $AB = EF$ ,  $B$  is the midpoint of  $\overline{AC}$ ,  
and  $E$  is the midpoint of  $\overline{DF}$ .

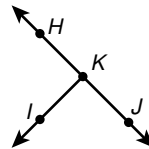


1.  $B$  is the midpoint of  $\overline{AC}$ ,  
and  $E$  is the midpoint of  $\overline{DF}$ . \_\_\_\_\_
2.  $\overline{AB} \cong \overline{BC}$ , and  $\overline{DE} \cong \overline{EF}$ . \_\_\_\_\_
3.  $AB = BC$ , and  $DE = EF$ . \_\_\_\_\_
4.  $AB + BC = AC$ , and  $DE + EF = DF$ . \_\_\_\_\_
5.  $2AB = AC$ , and  $2EF = DF$ . \_\_\_\_\_
6.  $AB = EF$  \_\_\_\_\_
7.  $2AB = 2EF$  \_\_\_\_\_
8.  $AC = DF$  \_\_\_\_\_
9.  $\overline{AC} \cong \overline{DF}$  \_\_\_\_\_

Fill in the blanks to complete the two-column proof.

**10. Given:**  $\angle HKJ$  is a straight angle.  
 $\overrightarrow{KI}$  bisects  $\angle HKJ$ .

**Prove:**  $\angle IKJ$  is a right angle.



**Proof:**

Statements	Reasons
1. a. _____	1. Given
2. $m\angle HKJ = 180^\circ$	2. b. _____
3. c. _____	3. Given
4. $\angle IKJ \cong \angle IKH$	4. Def. of $\angle$ bisector
5. $m\angle IKJ = m\angle IKH$	5. Def. of $\cong \angle$ s
6. d. _____	6. $\angle$ Add. Post.
7. $2m\angle IKJ = 180^\circ$	7. e. Subst. (Steps _____)
8. $m\angle IKJ = 90^\circ$	8. Div. Prop. of =
9. $\angle IKJ$ is a right angle.	9. f. _____