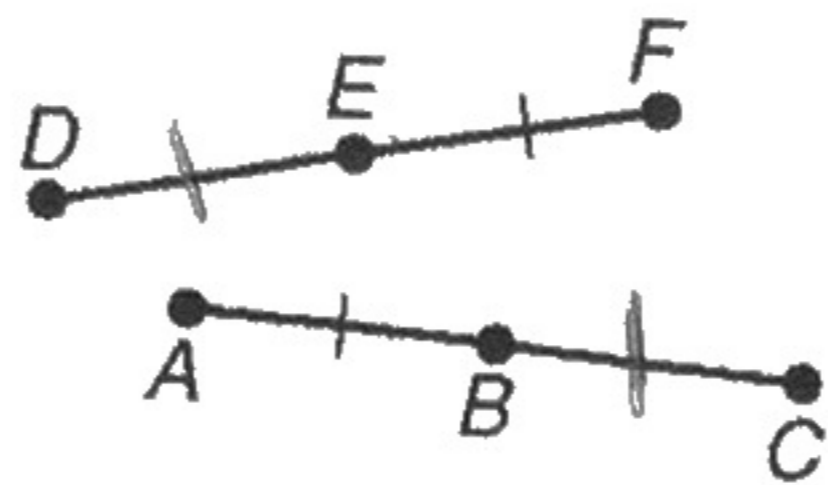


Additional Practice

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. $\overline{AC} \cong \overline{DF}$

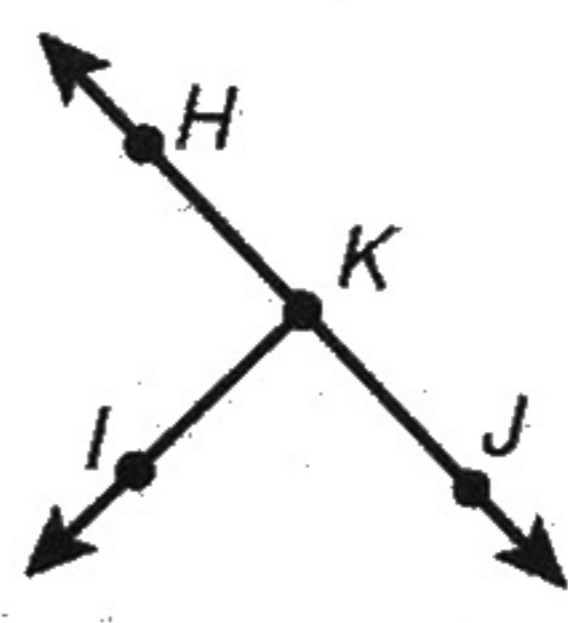
Given
 def of midpoint
 def of congruent segments
 segment addition post
 substitution prop of =
 given
 mult. prop of =
 substitution prop of =
 def of congruent segments

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

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

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

Proof:



Statements	Reasons
1. a. $\angle HKJ$ is a straight angle	1. Given
2. $m\angle HKJ = 180^\circ$	2. b. def of a straight angle
3. c. \overline{KI} bisects $\angle HKJ$	3. Given
4. $\angle IKJ \cong \angle IKH$	4. Def. of \angle bisector
5. $m\angle IKJ = m\angle IKH$	5. Def. of $\cong \angle$
6. c. $\angle HKI + \angle IKJ = \angle HKJ$	6. \angle Add. Post.
7. $2m\angle IKJ = 180^\circ$	7. e. Subst. (Steps 2, 5, 6)
8. $m\angle IKJ = 90^\circ$	8. Div. Prop. of =
9. $\angle IKJ$ is a right angle.	9. f. def of right \angle