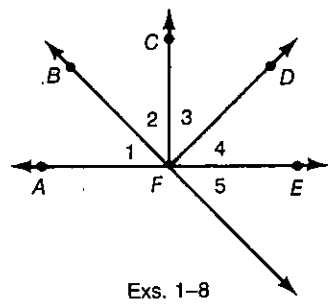


Practice 8

Chapter 2 Practice

Name or state the definition, postulate, or theorem that justifies each statement about the diagram.

- If $\overline{BF} \perp \overline{FD}$, then $\angle 2$ is complementary to $\angle 3$.
Ext. sides of 2 adj. acute \angle s $\cong \rightarrow$
 \angle s comp.
- $\angle 1 \cong \angle 5$ Vert. \angle s \cong
- If $m\angle 1 = m\angle 3$, then $m\angle 1 + m\angle 2 = m\angle 3 + m\angle 2$.
Add'n Prop. =
- If \overline{FD} bisects $\angle CFE$, then $m\angle 3 = \frac{1}{2}m\angle CFE$.
 \angle Bis Thm
- $m\angle AFB + m\angle BFE = 180$ \angle Add'n Post
- If $\overline{AE} \perp \overline{CF}$, then $\angle AFC$ is congruent to $\angle CFE$.
 \perp lines $\rightarrow \cong$ adj. \angle s
- If $\angle 2$ and $\angle 4$ are both complementary to $\angle 3$, then $\angle 2 \cong \angle 4$.
Comp. of same \angle comp.
- If F is the midpoint of \overline{AE} , then $AF = \frac{1}{2}AE$. Midpt. Thm.



Exs. 1-8

In Exercises 9-11, underline the hypothesis once and the conclusion twice.

- If a triangle is equilateral, then it is isosceles.
- $x^2 - 4 = 21$ if $x = 5$.
- It snows only if the weather is cold.

Find the indicated values for each diagram.

12.

$m\angle 1 = 30$
 $m\angle 2 = 60$
 $m\angle 3 = 30$
 $m\angle 4 = 90$

13.

$x = 12$

14.

$x = 18$
 $y = 54$