

Practice 7

Theorems about Angles and Perpendicular Lines

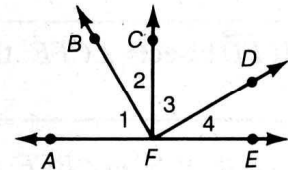
Lessons 2-4 through 2-6

Classify each statement as true or false.

1. Some vertical angles are supplementary. _____
2. If two angles are complementary to the same angle, they are complementary to each other. _____
3. Two lines are perpendicular if they form congruent adjacent angles. _____
4. Every acute angle has an acute complement. _____

What can you deduce based on the given information?

5. $\overrightarrow{AE} \perp \overrightarrow{CF}$ _____
6. $\overrightarrow{FB} \perp \overrightarrow{FD}$ _____
7. $\angle 1$ and $\angle 2$ are complementary. _____



Exs. 5-7

Use the given information to find the measures of the two angles described.

8. A supplement of an angle is five times as large as the angle.
angle _____ supplement _____
9. A complement of an angle is ten more than four times the angle.
angle _____ complement _____

10. Write a two-column proof.
Given: $\overline{AC} \perp \overline{CD}$; $\overline{BD} \perp \overline{CD}$;
 $\angle 1 \cong \angle 3$
Prove: $\angle 2 \cong \angle 4$

