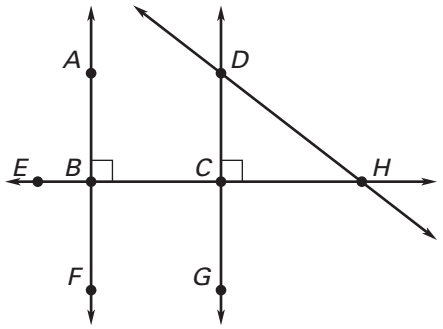
LESSON 2.2

NAME _____ DATE _____

Practice A

For use with pages 79–85

Use the diagram to determine whether the statement is *true* or *false*.



1. Points A, B, and C are collinear.
2. $\angle DCB$ and $\angle DCH$ are supplementary.
3. Points E, D, and H lie in the same plane.
4. $\overleftrightarrow{DH}$ is perpendicular to $\overleftrightarrow{EH}$.
5. $\overleftrightarrow{HE}$ is perpendicular to $\overleftrightarrow{AF}$.
6. $\angle DCB$ and $\angle ABC$ are complementary.
7. $\overleftrightarrow{BH}$ bisects $\angle DCG$.

Rewrite the biconditional statement as a conditional statement and its converse.

8. Two segments are congruent if and only if they have the same measure.
9. Three points are collinear if and only if they lie on the same line.
10. Four points are coplanar if and only if they lie in the same plane.
11. You may go to the movies Friday night if and only if you clean your room.
12. You may become president of the United States if and only if you are 35 years old.

Give a counterexample that demonstrates that the converse of the statement is false.

13. If you live in Detroit, then you live in Michigan.
14. If an angle measures 30°, then it is acute.
15. If an animal is a leopard, then it has spots.
16. If the month is September, then there are 30 days in the month.
17. If two angles are vertical angles, then they are not adjacent.

In Exercises 18 and 19, use the information in the table to write a definition for each type of saxophone. The first one is started for you.

	Frequency (cycles per second)	
Instrument	***Lower limit***	***Upper limit***
E-flat baritone saxophone	69	416
B-flat tenor saxophone	104	622
E-flat alto saxophone	138	831

Sample: A saxophone that has a frequency of 69 cycles per second to 416 cycles per second is called an E-flat baritone saxophone.

18. B-flat tenor saxophone
19. E-flat alto saxophone