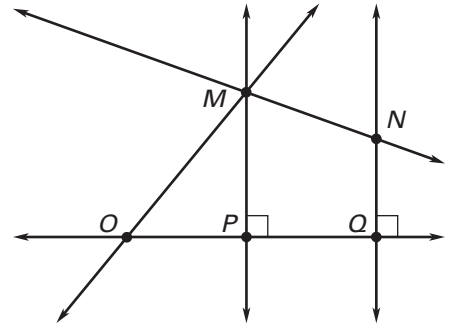


Practice B

For use with pages 79–85

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

- Points O , P , and Q are collinear.
- $\angle MPO$ and $\angle NQP$ are supplementary.
- Points M , P , and O lie in the same plane.
- \overleftrightarrow{MP} is perpendicular to \overleftrightarrow{NQ} .
- \overleftrightarrow{NQ} is perpendicular to \overleftrightarrow{OQ} .
- $\angle MPO$ and $\angle MPQ$ are complementary.
- Point Q is between point O and point P .



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

- $x = 4$ if and only if $x^2 = 16$.
- Point Y lies between points X and Z if and only if $XY + YZ = XZ$.
- The car will run if and only if there is gas in the tank.
- Two angles are congruent if and only if they have the same measure.
- An angle is a right angle if and only if it measures 90° .

Write the converse of each true statement. If the converse is also true, combine the statements to write a true biconditional statement.

- If you are 15 years old, then you are a teenager.
- If point C is on \overrightarrow{BA} , then point C is on \overleftarrow{BA} .
- If two angles are complementary, then the sum of their measures is 90° .
- If point C is between points A and B , then \overrightarrow{CA} and \overrightarrow{CB} are opposite rays.
- If two angles form a linear pair, then they are adjacent.

In Exercises 18–19, use the information in the table.

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

- Write a definition of an E-flat baritone saxophone.
- Tell whether the following conditional is true. If not, explain why not.

If a note played on a saxophone has a frequency of 610 cycles per second, then the saxophone is an E-flat alto saxophone.