

**LESSON**  
**2.2****Practice B***For use with pages 79–85***Rewrite the conditional statement in if-then form.**

1. It is time for dinner if it is 6 P.M.
2. There are 12 eggs if the carton is full.
3. An obtuse angle is an angle that measures more than  $90^\circ$  and less than  $180^\circ$ .
4. The car runs when there is gas in the tank.

**Write the converse, inverse, and contrapositive of each statement.**

5. If you like hockey, then you go to the hockey game.
6. If  $x$  is odd, then  $3x$  is odd.

**Decide whether the statement is *true* or *false*. If false, provide a counterexample.**

7. The equation  $4x - 3 = 12 + 2x$  has exactly one solution.
8. If  $x^2 = 36$ , then  $x$  must equal 18 or  $-18$ .
9. If  $m\angle A = 122^\circ$ , then the measure of the supplement of  $\angle A$  is  $58^\circ$ .
10. Two lines intersect in at most one point.

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

11. If an angle measures  $30^\circ$ , then it is acute.
12. If two angles are supplementary, then their sum is  $180^\circ$ .
13. If two circles have the same diameter, then they have the same circumference.
14. If an animal is a panther, then it lives in the forest.

**LESSON**  
**2.2****Practice B** *continued*  
*For use with pages 79–85***Rewrite the biconditional statement as a conditional statement and its converse.**

- 15.** Two lines are perpendicular if and only if they intersect to form right angles.
- 16.** A point is a midpoint of a segment if and only if it divides the segment into two congruent segments.

**Decide whether the statement is a valid definition.**

- 17.** If a number is divisible by 2 and 3, then it is divisible by 6.
- 18.** If two angles have the same measure, then they are congruent.
- 19.** If two angles are not adjacent, then they are vertical angles.

**In Exercises 20–22, use the information in the table to write a definition for each type of saxophone.**

| Instrument                | Frequency (cycles per second) |                  |
|---------------------------|-------------------------------|------------------|
|                           | Lower limit (Hz)              | Upper limit (Hz) |
| E-flat baritone saxophone | 69                            | 415              |
| B-flat tenor saxophone    | 103                           | 622              |
| E-flat alto saxophone     | 138                           | 830              |

- 20.** E-flat baritone saxophone
- 21.** B-flat tenor saxophone
- 22.** E-flat alto saxophone

**In Exercises 23 and 24, use the information in the table above and the answers to Exercise 20–22.**

- 23.** If the frequency of a saxophone was 95 Hz, what could you conclude?
- 24.** If the frequency of a saxophone was 210 Hz, what could you conclude?