Answer Key

Lesson 2.2

Practice Level B

1. If it is 6 P.M., then it is time for dinner.

2. If the carton is full, then there are 12 eggs.

3. If an angle is obtuse, then it measures more than 90° and less than 180°.

4. If there is gas in the tank, then the car will run.

5. converse: If you go to the hockey game, then you like hockey; inverse: If you do not like hockey, then you do not go to the hockey game; contrapositive: If you do not go to the hockey game, then you do not like hockey.

6. converse: If $3x$ is odd, then x is odd; inverse: If x is not odd, then $3x$ is not odd; contrapositive: If $3x$ is not odd, then x is not odd.

7. true

8. false; $x = \pm 6$

9. true   **10.** true   **11.** If an angle is acute, then it measures 30°.   **12.** converse: If the sum of two angles is 180°, then they are supplementary; biconditional: Two angles are supplementary if and only if their sum is 180°.   **13.** converse: If two circles have the same circumference, then they have the same diameter; biconditional: Two circles have the same circumference if and only if they have the same diameter.   **14.** If an animal lives in the forest, then it is a panther.   **15.** conditional statement: If two lines are perpendicular, then they intersect to form right angles; converse: If two lines intersect to form right angles, then the two lines are perpendicular.

16. conditional statement: If a point is a midpoint of a segment, then it divides the segment into two congruent segments; converse: If a point divides a segment into two congruent segments, then the point is the midpoint of the segment.   **17.** yes   **18.** yes   **19.** No; the angles could be in a triangle.

20. A saxophone that has a frequency of 69 cycles per second to 415 cycles per second is called an E-flat baritone saxophone.   **21.** A saxophone that has a frequency of 103 cycles per second to 622 cycles per second is called a B-flat tenor saxophone.   **22.** A saxophone that has a frequency of 138 cycles per second to 830 cycles per second is called an E-flat alto saxophone.

23. The saxophone is an E-flat baritone saxophone.

24. nothing; It could be any of the three saxophones.