

LESSON

2-4

Practice B

Biconditional Statements and Definitions

Write the conditional statement and converse within each biconditional.

1. The tea kettle is whistling if and only if the water is boiling.

Conditional: _____

Converse: _____

2. A biconditional is true if and only if the conditional and converse are both true.

Conditional: _____

Converse: _____

For each conditional, write the converse and a biconditional statement.

3. Conditional: If n is an odd number, then $n - 1$ is divisible by 2.

Converse: _____

Biconditional: _____

4. Conditional: An angle is obtuse when it measures between 90° and 180° .

Converse: _____

Biconditional: _____

Determine whether a true biconditional can be written from each conditional statement. If not, give a counterexample.

5. If the lamp is unplugged, then the bulb does not shine.

6. The date can be the 29th if and only if it is not February.

Write each definition as a biconditional.

7. A cube is a three-dimensional solid with six square faces.

8. Tanya claims that the definition of *doofus* is “her younger brother.”
