

Lesson 12-3

Problem

Refer to the following statement.

Two right angles are supplementary.

- a. Rephrase the statement as an *if-then* statement.
- b. Write the converse.
- c. Determine if the statement and its converse are *true* or *false*. If *false*, give a counterexample.

Solve the Problem

- a. If two angles are right angles, then the angles are supplementary.
- b. *Converse:* If two angles are supplementary, then the angles are right angles.
- c. The original statement is true since the sum of two right angles is $90^\circ + 90^\circ = 180^\circ$. The converse, however, is false. A counterexample would be two angles with measures 120° and 60° . These angles are supplementary, but they are not right angles.