

Chapter 9 Angle Relationships

Worksheet C Mixed Practice and Application

Name: _____ Grade: _____ Date: _____

1. Name First, Then Solve

For each problem, name the angle relationship first.

a. Two angles on a straight line are 48° and x . Find x .

b. Two angles are complementary. One is 61° . Find the other.

c. Angles around a point are 85° , 140° , 65° , and x . Find x .

d. A co-interior angle is 117° . Find the other co-interior angle.

2. Student Error

A student says:

“Co-interior angles are equal because the lines are parallel.”

Explain the mistake.

3. Which Relationship?

Two parallel lines are cut by a transversal.

One angle is 74° . Another angle is in the same relative position on the second parallel line.

a. What is the relationship?

b. Find the angle.

4. Missing Angle with More Than One Step

Three angles lie on a straight line.

Two angles are 36° and 89° .

a. Add the known angles.

b. Find the missing angle.

c. Explain why the total is 180° , not 360° .

5. Around a Point Trap

A student sees angles around a point and subtracts from 180° .

Explain why that is wrong.

6. Parallel-Line Condition

A diagram shows two lines cut by a transversal, but the lines are not marked parallel.

A student says the corresponding angles must be equal.

Explain why this is not safe.
