

Chapter 10 Triangles and Quadrilaterals

Worksheet C Mixed Practice and Application

Name: _____ Grade: _____ Date: _____

1. Name the Fact First

For each problem, name the fact you are using before solving.

a. A triangle has angles 32° , 88° , and x .

b. A quadrilateral has angles 95° , 115° , 75° , and x .

c. An isosceles triangle has a top angle of 34° .

d. A parallelogram has one angle of 104° . Find the adjacent angle.

2. Student Error

A student says:

“The triangle looks equilateral, so each angle is 60° .”

No equal side marks or angle marks are shown.

Explain the mistake.

3. Design Check

A student draws a quadrilateral with angles:

90° , 90° , 90° , 100°

Can this be correct?

Explain.

4. Isosceles Trap

An isosceles triangle has a top angle of 46° .

A student says each base angle is 134° .

a. Explain the mistake.

b. Find each base angle.

5. Parallelogram Reasoning

A parallelogram has one angle of 65° .

a. Find the opposite angle.

b. Find each adjacent angle.

c. List all four angles.

6. Shape Classification

A quadrilateral has four right angles and all four sides equal.

a. What shape is it?

b. What facts told you that?

Cumulative Recalculation Review — Part 2: Circles, Angles, Triangles, and Quadrilaterals

Road Test — retrieve, decide, and route

Work without looking back first. These items deliberately mix earlier ideas. A cluster of errors matters more than one isolated slip.

1. A circle has radius 5 cm. Find its circumference using $\pi \approx 3.14$.

2. The same circle has radius 5 cm. Find its area.

3. An angle looks obtuse and the protractor readings are 58° and 122° . Choose the reasonable reading and explain.

4. Two angles on a straight line are 71° and x . Find x .

5. Two parallel lines are cut by a transversal. One co-interior angle is 118° . Find the other.

6. An isosceles triangle has top angle 44° . Find each base angle.

7. A quadrilateral has angles 90° , 85° , 110° , and x . Find x .

8. Recalculation decision: Which error would send you back to radius/diameter, and which would send you back to angle-relationship naming?

Recalculation decision

Mark any two items that felt difficult for the same reason. Name the earliest skill or representation you would revisit before doing more practice.