

Grade 3 • Unit 7 Worksheet

Two-Dimensional Shapes and Perimeter

Name: _____

Date: _____

Part A • Shape Attributes

1. Below are shape names. Circle the ones that are QUADRILATERALS.

triangle square pentagon rectangle rhombus trapezoid hexagon

What makes a shape a quadrilateral?

2. Which of these statements are TRUE about ALL rectangles? Check all that apply.

- ☐ a) All sides are the same length.
- ☐ b) Opposite sides are the same length.
- ☐ c) All 4 angles are right angles (square corners).
- ☐ d) It has 4 sides.

Why is one of the statements you DIDN'T check NOT true for all rectangles?

3. Draw a quadrilateral that is NOT a rectangle, square, OR rhombus. Then describe what makes it one of those things.

Describe your shape:

4. Is every square also a rectangle? Is every rectangle also a square? Explain.

Part B • Perimeter

5. Find the perimeter of each shape.

a. A rectangle with sides 8 cm and 5 cm: perimeter = _____ cm

b. A square with side 7 inches: perimeter = _____ in

c. A triangle with sides 4 ft, 6 ft, and 9 ft: perimeter = _____ ft

6. A pentagon has sides of length 5, 7, 10, 4, and one MISSING side. The total perimeter is 32 cm.

What is the missing side length? _____ cm

Show your reasoning:

7. Mai wants to put a fence around her rectangular garden. The garden is 12 meters long and 7 meters wide. How many meters of fence does she need?

Sketch the garden and label it:

Answer: _____ meters

Part C • Perimeter vs. Area

8. A rectangle is 6 cm by 4 cm.

Perimeter: _____ cm

Area: _____ sq cm

Explain the difference between perimeter and area in your own words.

9. Draw TWO different rectangles that each have a perimeter of 16 units.

Rectangle 1: _____ by _____, area = _____ sq units

Rectangle 2: _____ by _____, area = _____ sq units

Do they have the same area? Should they?

Part D • Thinking Deeply

10. Han says, "If two rectangles have the same area, they must have the same perimeter." Is Han correct? Give an example to support your answer.

11. A square has a perimeter of 20 cm. What is its area?

Show your work:

Answer: _____ sq cm

12. Sam drew a shape and said its perimeter is 18 cm but its area is 12 sq cm. Mei drew a shape and said HER shape has the same perimeter, but DIFFERENT area. Can both be right? Explain.
