

## GEOMETRY & REASONING

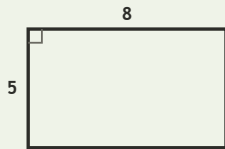
Spatial Lab • Sides, Perimeter, and Difference

Objective: Reason about shapes: perimeter, and how much longer one side is.

**DO THIS** Add the sides to find perimeter. Subtract to compare two sides.

**SHAPE FACTS** All sides are in centimetres. Add for perimeter; subtract to compare.

**EXAMPLE**



Perimeter (all sides in cm):

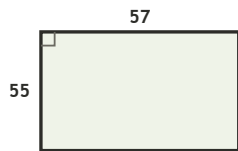
$$8 + 5 + 8 + 5 = \underline{26} \text{ cm}$$

Long side – short side:

$$8 - 5 = \underline{3} \text{ cm}$$

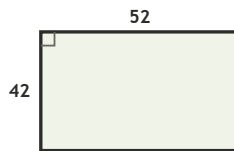
**COMPARE SIDES** How much longer is the long side, in cm?

1



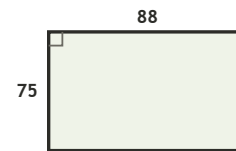
$$57 - 55 = \square \text{ cm longer}$$

2



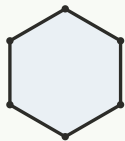
$$52 - 42 = \square \text{ cm longer}$$

3

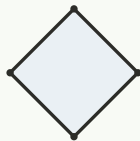


$$88 - 75 = \square \text{ cm longer}$$

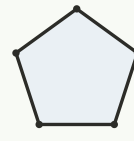
**COUNT THE SIDES** Write how many sides each shape has.



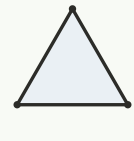
sides: \_\_\_



sides: \_\_\_



sides: \_\_\_



sides: \_\_\_

**FIND THE PERIMETER** Add all four sides, in cm.

1

Rectangle 65 by 52 cm. Perimeter?

$$65 + 52 + 65 + 52 = \square \text{ cm}$$

2

Rectangle 34 by 16 cm. Perimeter?

$$34 + 16 + 34 + 16 = \square \text{ cm}$$

3

Rectangle 50 by 22 cm. Perimeter?

$$50 + 22 + 50 + 22 = \square \text{ cm}$$

4

Rectangle 37 by 21 cm. Perimeter?

$$37 + 21 + 37 + 21 = \square \text{ cm}$$

5

Rectangle 58 by 28 cm. Perimeter?

$$58 + 28 + 58 + 28 = \square \text{ cm}$$

6

Rectangle 84 by 71 cm. Perimeter?

$$84 + 71 + 84 + 71 = \square \text{ cm}$$

I used:  addition (perimeter)  subtraction (compare)  counting (sides)

TEACHER EDITION

## GEOMETRY & REASONING

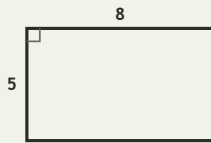
Spatial Lab • Sides, Perimeter, and Difference

Objective: Reason about shapes: perimeter, and how much longer one side is.

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**SHAPE FACTS** All sides are in centimetres. Add for perimeter; subtract to compare.

EXAMPLE



Perimeter (all sides in cm):

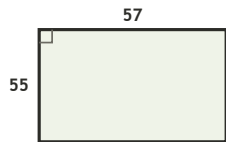
$$8 + 5 + 8 + 5 = \underline{26} \text{ cm}$$

Long side - short side:

$$8 - 5 = \underline{3} \text{ cm}$$

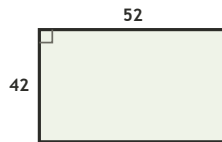
**COMPARE SIDES** How much longer is the long side, in cm?

1



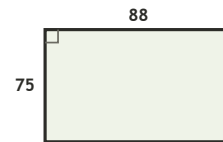
$$57 - 55 = \underline{2} \text{ cm longer}$$

2



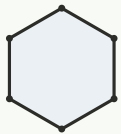
$$52 - 42 = \underline{10} \text{ cm longer}$$

3

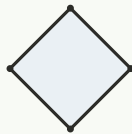


$$88 - 75 = \underline{13} \text{ cm longer}$$

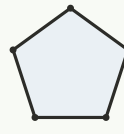
**COUNT THE SIDES** Write how many sides each shape has.



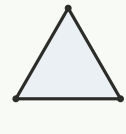
sides: 6



sides: 4



sides: 5



sides: 3

**FIND THE PERIMETER** Add all four sides, in cm.

1

Rectangle 65 by 52 cm. Perimeter?

$$65 + 52 + 65 + 52 = \underline{234} \text{ cm}$$

2

Rectangle 34 by 16 cm. Perimeter?

$$34 + 16 + 34 + 16 = \underline{100} \text{ cm}$$

3

Rectangle 50 by 22 cm. Perimeter?

$$50 + 22 + 50 + 22 = \underline{144} \text{ cm}$$

4

Rectangle 37 by 21 cm. Perimeter?

$$37 + 21 + 37 + 21 = \underline{116} \text{ cm}$$

5

Rectangle 58 by 28 cm. Perimeter?

$$58 + 28 + 58 + 28 = \underline{172} \text{ cm}$$

6

Rectangle 84 by 71 cm. Perimeter?

$$84 + 71 + 84 + 71 = \underline{310} \text{ cm}$$

**TEACHER NOTES** Answer key & guidance

Answers: perimeters and side differences  
Common error: Adding only two sides for perimeter

Strategy: Perimeter = sum of sides; compare with subtraction  
Prompt: "How many sides must you add?"

I used:  addition (perimeter)  subtraction (compare)  counting (sides)

