

## GEOMETRY & REASONING

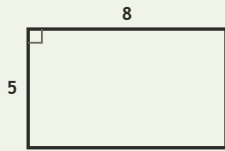
Spatial Lab • Sides, Perimeter, and Difference

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):

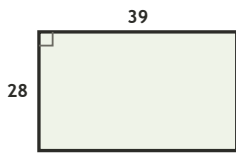
$$8 + 5 + 8 + 5 = \underline{26} \text{ cm}$$

Long side – short side:

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

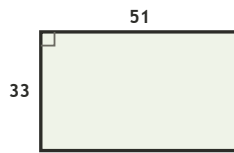
**COMPARE SIDES** How much longer is the long side, in cm?

1



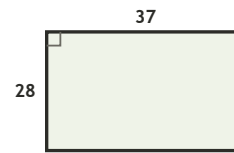
$$39 - 28 = \square \text{ cm longer}$$

2



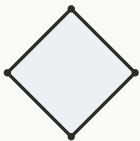
$$51 - 33 = \square \text{ cm longer}$$

3

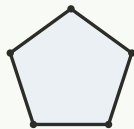


$$37 - 28 = \square \text{ cm longer}$$

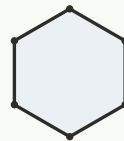
**COUNT THE SIDES** Write how many sides each shape has.



sides: \_\_\_



sides: \_\_\_



sides: \_\_\_



sides: \_\_\_

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

1

Rectangle 33 by 24 cm. Perimeter?

$$33 + 24 + 33 + 24 = \square \text{ cm}$$

2

Rectangle 52 by 47 cm. Perimeter?

$$52 + 47 + 52 + 47 = \square \text{ cm}$$

3

Rectangle 74 by 70 cm. Perimeter?

$$74 + 70 + 74 + 70 = \square \text{ cm}$$

4

Rectangle 91 by 52 cm. Perimeter?

$$91 + 52 + 91 + 52 = \square \text{ cm}$$

5

Rectangle 59 by 56 cm. Perimeter?

$$59 + 56 + 59 + 56 = \square \text{ cm}$$

6

Rectangle 41 by 13 cm. Perimeter?

$$41 + 13 + 41 + 13 = \square \text{ cm}$$

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

TEACHER EDITION

## GEOMETRY & REASONING

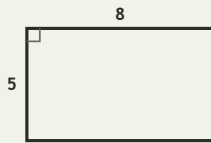
Spatial Lab • Sides, Perimeter, and Difference

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

**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):

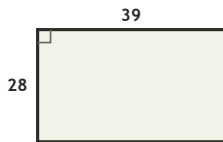
$$8 + 5 + 8 + 5 = \underline{26} \text{ cm}$$

Long side - short side:

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

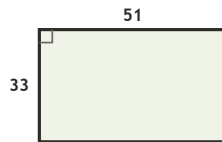
**COMPARE SIDES** How much longer is the long side, in cm?

1



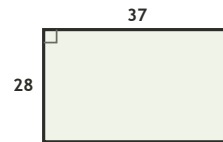
$$39 - 28 = \underline{11} \text{ cm longer}$$

2



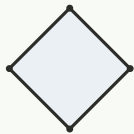
$$51 - 33 = \underline{18} \text{ cm longer}$$

3

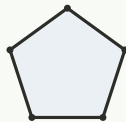


$$37 - 28 = \underline{9} \text{ cm longer}$$

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



sides: 4



sides: 5



sides: 6



sides: 3

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

1

Rectangle 33 by 24 cm. Perimeter?

$$33 + 24 + 33 + 24 = \underline{114} \text{ cm}$$

2

Rectangle 52 by 47 cm. Perimeter?

$$52 + 47 + 52 + 47 = \underline{198} \text{ cm}$$

3

Rectangle 74 by 70 cm. Perimeter?

$$74 + 70 + 74 + 70 = \underline{288} \text{ cm}$$

4

Rectangle 91 by 52 cm. Perimeter?

$$91 + 52 + 91 + 52 = \underline{286} \text{ cm}$$

5

Rectangle 59 by 56 cm. Perimeter?

$$59 + 56 + 59 + 56 = \underline{230} \text{ cm}$$

6

Rectangle 41 by 13 cm. Perimeter?

$$41 + 13 + 41 + 13 = \underline{108} \text{ cm}$$

**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)