

## GEOMETRY & REASONING

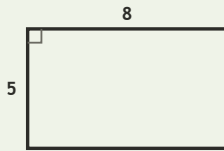
Spatial Lab • Sides, Perimeter, and Difference

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):

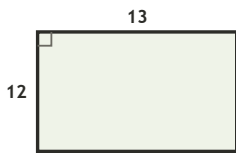
$$8 + 5 + 8 + 5 = \underline{26} \text{ cm}$$

Long side – short side:

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

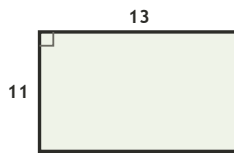
**COMPARE SIDES** How much longer is the long side, in cm?

1



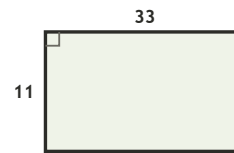
$$13 - 12 = \square \text{ cm longer}$$

2



$$13 - 11 = \square \text{ cm longer}$$

3

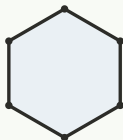


$$33 - 11 = \square \text{ cm longer}$$

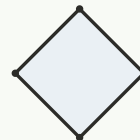
**COUNT THE SIDES** Write how many sides each shape has.



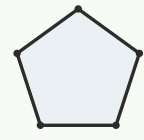
sides: \_\_\_



sides: \_\_\_



sides: \_\_\_



sides: \_\_\_

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

1

Rectangle 18 by 7 cm. Perimeter?

$$18 + 7 + 18 + 7 = \square \text{ cm}$$

2

Rectangle 19 by 12 cm. Perimeter?

$$19 + 12 + 19 + 12 = \square \text{ cm}$$

3

Rectangle 30 by 26 cm. Perimeter?

$$30 + 26 + 30 + 26 = \square \text{ cm}$$

4

Rectangle 36 by 29 cm. Perimeter?

$$36 + 29 + 36 + 29 = \square \text{ cm}$$

5

Rectangle 36 by 14 cm. Perimeter?

$$36 + 14 + 36 + 14 = \square \text{ cm}$$

6

Rectangle 16 by 15 cm. Perimeter?

$$16 + 15 + 16 + 15 = \square \text{ cm}$$

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

TEACHER EDITION

## GEOMETRY & REASONING

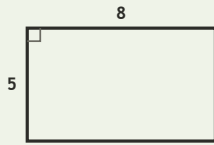
Spatial Lab • Sides, Perimeter, and Difference

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):

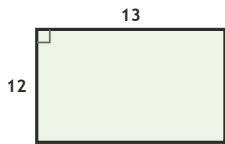
$$8 + 5 + 8 + 5 = \underline{26} \text{ cm}$$

Long side - short side:

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

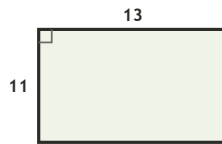
**COMPARE SIDES** How much longer is the long side, in cm?

1



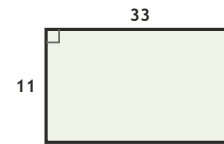
$$13 - 12 = \underline{1} \text{ cm longer}$$

2



$$13 - 11 = \underline{2} \text{ cm longer}$$

3

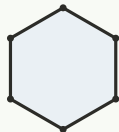


$$33 - 11 = \underline{22} \text{ cm longer}$$

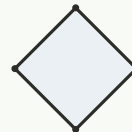
**COUNT THE SIDES** Write how many sides each shape has.



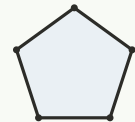
sides: 3



sides: 6



sides: 4



sides: 5

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

1

Rectangle 18 by 7 cm. Perimeter?

$$18 + 7 + 18 + 7 = \underline{50} \text{ cm}$$

2

Rectangle 19 by 12 cm. Perimeter?

$$19 + 12 + 19 + 12 = \underline{62} \text{ cm}$$

3

Rectangle 30 by 26 cm. Perimeter?

$$30 + 26 + 30 + 26 = \underline{112} \text{ cm}$$

4

Rectangle 36 by 29 cm. Perimeter?

$$36 + 29 + 36 + 29 = \underline{130} \text{ cm}$$

5

Rectangle 36 by 14 cm. Perimeter?

$$36 + 14 + 36 + 14 = \underline{100} \text{ cm}$$

6

Rectangle 16 by 15 cm. Perimeter?

$$16 + 15 + 16 + 15 = \underline{62} \text{ cm}$$

**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)