

# Grade 3 · Perimeter · Test Answer Key

Common Core 3.MD.D.8 · mathovore.fr

Worked solutions and a scoring guide for the Grade 3 perimeter test. Each answer shows the sum of the sides or the subtraction for an unknown side, and the scoring note tells how many of the 20 points each step earns.

## Grade 3 Common Core: 3.MD.D.8

### Question 1: Perimeter of a triangle (2 points)

$7+10+9=26$ . The perimeter is **26 cm**.

*Scoring: 1 point for adding all three sides, 1 point for 26 cm with the correct unit.*

### Question 2: Rectangle and square (2 points)

(a)  $13+8+13+8=42$ . The perimeter is **42 feet**.

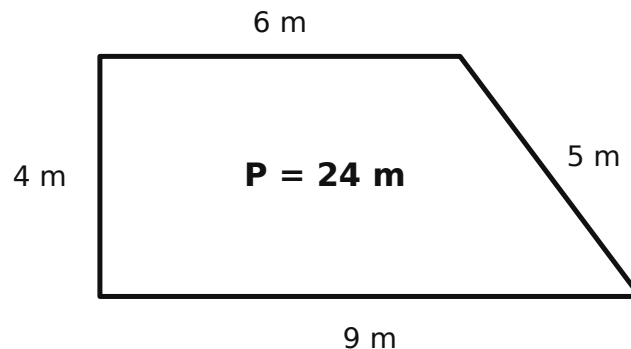
(b)  $4\times 9=36$ . The perimeter is **36 feet**.

*Scoring: 1 point for each correct perimeter with units. An answer that gives 21 (half the perimeter) earns no point.*

### Question 3: Unknown side length (2 points)

Known sides:  $6+5+9=20$ . Unknown side:  $24-20=4$ .

The unknown side is **4 meters**. Check:  $6+5+9+4=24$ .



The unknown side is 4 m.

*Scoring: 1 point for adding the known sides (20), 1 point for the unknown side of 4 meters.*

#### Question 4: Missing width (2 points)

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Two lengths:  $9+9=18$ .  $28-18=10$ , and  $10\div 2=5$ .

The width is **5 inches**.

*Scoring: 1 point for finding that the two widths together are 10 inches, 1 point for a width of 5 inches.*

#### Question 5: Fence sections (2 points)

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Perimeter:  $18+12+18+12=60$  feet.

$60\div 10=6$ . She needs **6 sections**.

*Scoring: 1 point for the perimeter of 60 feet, 1 point for 6 sections.*

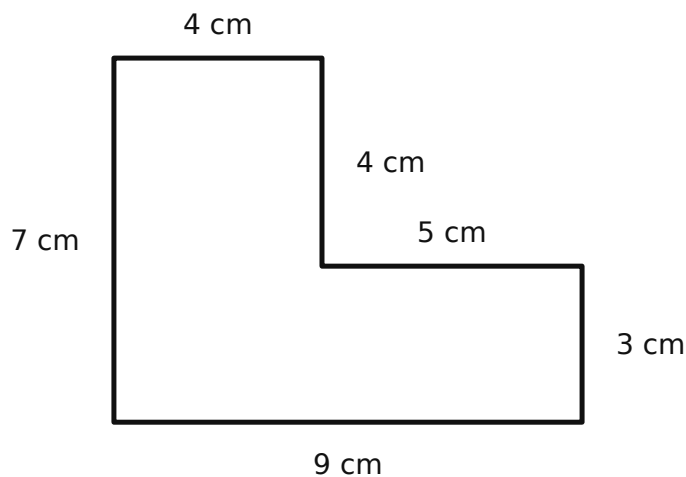
#### Question 6: Perimeter of an L-shape (3 points)

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The two unlabeled sides: the right side of the top part is  $7-3=4$  cm, and the horizontal step is  $9-4=5$  cm.

Add all six sides:  $4+4+5+3+9+7=32$ .

The perimeter is **32 cm**. (Check:  $2\times(9+7)=32$ .)



All six sides: 32 cm.

*Scoring: 1 point for each of the two missing sides (4 cm and 5 cm), 1 point for the total of 32 cm.*

### Question 7: Same perimeter (2 points)

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(a) A:  $9+3+9+3=24$ . B:  $6+6+6+6=24$ . **Both are 24 cm.**

(b)  $9\times 3=27$  and  $6\times 6=36$ . **Rectangle B has the greater area.**

*Scoring: 1 point for both perimeters equal to 24 cm, 1 point for naming Rectangle B with the areas 36 and 27 shown.*

### Question 8: Same area (3 points)

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(a)  $8+2+8+2=20$  units and  $4+4+4+4=16$  units.

(b)  $16<20$ , so **the 4-by-4 square has the shorter perimeter.**

*Scoring: 1 point for each correct perimeter, 1 point for naming the 4-by-4 square.*

### Question 9: Ribbon for two cards (2 points)

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Rectangle:  $7+5+7+5=24$ . Square:  $4\times 8=32$ .

$24+32=56$ . She uses **56 inches**.

*Scoring: 1 point for both perimeters (24 and 32), 1 point for the total of 56 inches.*

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| <b>Total</b>     |
| <b>20 points</b> |