

Grade 3 - Perimeter - Answer Key

Common Core 3.MD.D.8 · maths-pdf.fr/en/

This **perimeter practice solutions** for 3rd Grade covers perimeter (Common Core 3.MD.D.8), with a free PDF to print.

Here are the full solutions to all 20 perimeter problems. Compare your sums with these steps, and check that each answer has its unit. For missing sides, the subtraction step is shown so you can find where a mistake happened.

Grade 3 · Common Core State Standards: **3.MD.D.8**

Perimeter practice solutions: exercises 1 to 10

Exercise 1 - Triangle perimeter

$$5+12+13=30.$$

Perimeter: **30 cm.**

Exercise 2 - Rectangle perimeter

$$\text{Opposite sides are equal: } 11+6+11+6=34.$$

Perimeter: **34 feet.**

Exercise 3 - Square perimeter

$$4 \times 12 = 48.$$

Perimeter: **48 inches.**

Exercise 4 - Four sides

$$8+6+10+7=31.$$

Perimeter: **31 yards.**

Exercise 5 - Regular pentagon

$$5 \times 7 = 35.$$

Perimeter: **35 meters.**

Exercise 6 - Regular hexagon

$$6 \times 9 = 54.$$

Perimeter: **54 centimeters.**

Exercise 7 - Figure with right angles

$$8 + 2 + 3 + 2 + 5 + 4 = 24.$$

Perimeter: **24 cm.**

Exercise 8 - Missing width

Two lengths: $9 + 9 = 18$. Two widths make $30 - 18 = 12$. One width is $12 \div 2 = 6$.

Width: **6 feet.**

Exercise 9 - Missing triangle side

$$13 + 15 = 28 \text{ and } 40 - 28 = 12.$$

Third side: **12 inches.**

Exercise 10 - Side of a square

$$36 \div 4 = 9.$$

Each side: **9 centimeters.**

Exercises 11 and up

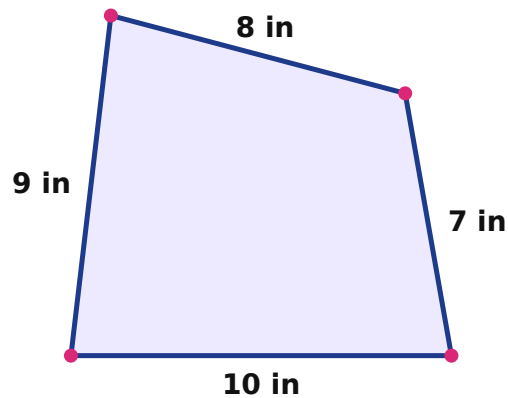
Exercise 11 - Equilateral triangle

$$51 \div 3 = 17.$$

One side: **17 feet**.

Exercise 12 - Missing side of a quadrilateral

$$10 + 7 + 8 = 25 \text{ and } 34 - 25 = 9.$$

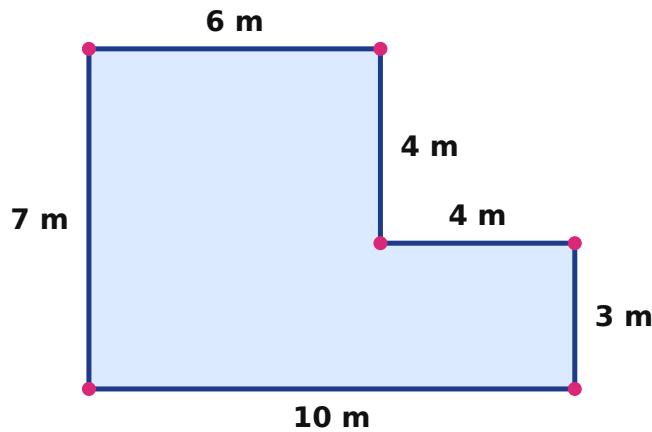


The missing side is 9 inches.

Missing side: **9 inches**.

Exercise 13 - Unlabeled sides

The top step is $10 - 6 = 4$ meters and the vertical step is $7 - 3 = 4$ meters.



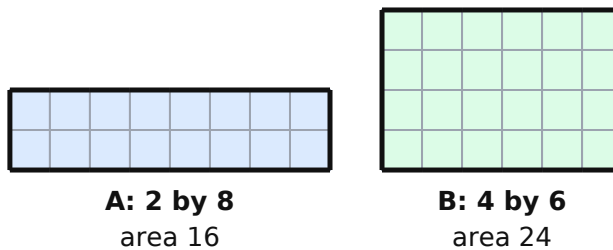
The unlabeled sides are 4 m each.

$$10 + 3 + 4 + 4 + 6 + 7 = 34.$$

Perimeter: **34 meters**.

Exercise 14 - Same perimeter

A: perimeter $2 \times (2 + 8) = 20$, area $2 \times 8 = 16$. B: perimeter $2 \times (4 + 6) = 20$, area $4 \times 6 = 24$.



Same perimeter, different areas.

Both perimeters are 20 units. The areas are 16 and 24 square units.

Exercise 15 - Walking around the park

$$120 + 80 + 120 + 80 = 400.$$

She walks **400 yards**.

Exercise 16 - Fence for a dog pen

Perimeter: $2 \times (7+5) = 24$ feet.

Cost: $24 \times \$3 = \$72$.

The fence costs **\$72**.

Exercise 17 - Ribbon around a frame

Perimeter: $2 \times (14+10) = 48$ inches.

Left over: $60 - 48 = 12$.

12 inches of ribbon are left.

Exercise 18 - Garden with fencing

Two lengths: $11+11=22$. Two widths: $36-22=14$. One width: $14 \div 2 = 7$.

Area: $11 \times 7 = 77$.

Width: **7 feet**. Area: **77 square feet**.

Exercise 19 - Twelve square tiles

1 by 12: $2 \times (1+12) = 26$. 2 by 6: $2 \times (2+6) = 16$. 3 by 4: $2 \times (3+4) = 14$.

Perimeters: **26 ft, 16 ft, 14 ft**. The **3 by 4** rectangle has the smallest perimeter.

Exercise 20 - Poster border

Two widths: $7+7=14$. Two lengths: $38-14=24$. One length: $24 \div 2 = 12$.

Length: **12 inches**.

Key facts behind this perimeter practice solutions

Key facts

- Perimeter is the sum of the lengths of all the sides of a polygon.

- It is measured in plain units, such as inches, feet, or centimeters.
- A rectangle has two lengths and two widths: $P = 2 \times (\text{length} + \text{width})$.
- To find a missing side, subtract the known sides from the perimeter.
- Rectangles with the same perimeter can have different areas.

How to use this perimeter practice solutions

Cover each solution, solve the exercise again, then uncover it and compare every line. If your answer differs, find the first step that changed and redo the exercise from there.