

Grade 3 - Perimeter - Test Answer Key

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

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

This answer key gives the worked solution and the scoring guide for each question of the perimeter test. The total is 20 points. Give credit for any correct method, and take off a point when the unit is missing from a final answer.

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

Perimeter test answers: worked solutions

Question 1 - Triangle and hexagon [2 pts]

- a. $9+11+14=34$. Perimeter: 34 cm.
- b. $6\times 6=36$. Perimeter: 36 inches.

Scoring: 1 point per part, with the correct unit.

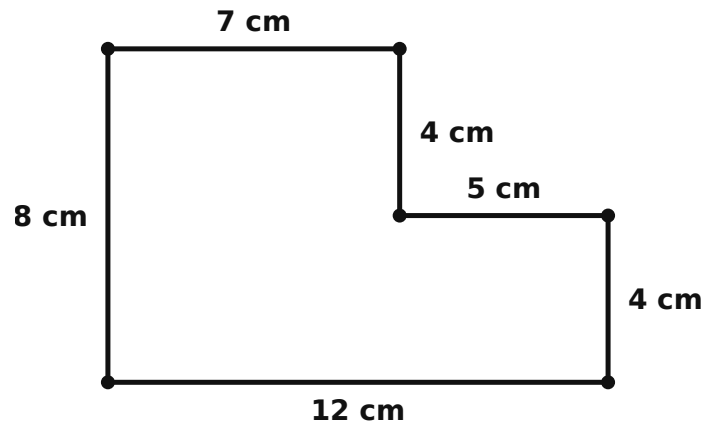
Question 2 - Rectangle and square [2 pts]

- a. $15+6+15+6=42$. Perimeter: 42 meters.
- b. $4\times 13=52$. Perimeter: 52 feet.

Scoring: 1 point per part, with the correct unit.

Question 3 - Perimeter with right angles [3 pts]

The unlabeled horizontal side is $12-7=5$ cm. The unlabeled vertical side is $8-4=4$ cm.



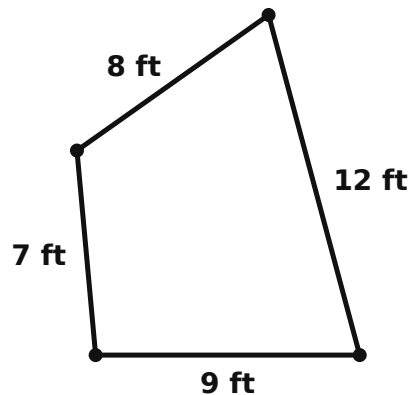
Missing sides: 5 cm and 4 cm.

$$12 + 4 + 5 + 4 + 7 + 8 = 40. \text{ Perimeter: } 40 \text{ cm.}$$

Scoring: 1 point for each correct missing side. 1 point for the total with units.

Question 4 - Missing side [2 pts]

$$9 + 12 + 8 = 29 \text{ and } 36 - 29 = 7.$$



Missing side: 7 feet.

Missing side: 7 feet.

Scoring: 1 point for adding the known sides. 1 point for 7 feet.

Question 5 - Missing length [2 pts]

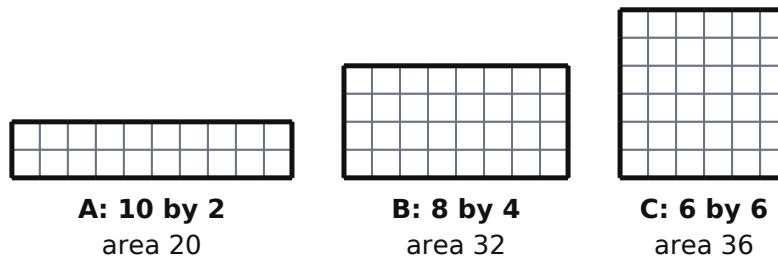
Two widths: $9+9=18$. Two lengths: $44-18=26$. One length: $26\div2=13$.

Length: 13 inches.

Scoring: 1 point for finding the two lengths together (26). 1 point for 13 inches.

Question 6 - Same perimeter [3 pts]

- a. A: $10\times2=20$. B: $8\times4=32$. C: $6\times6=36$. Areas: 20, 32, and 36 square units.
b. Rectangle C has the greatest area.



Areas 20, 32, and 36.

Scoring: 2 points for three correct areas (1 point if two are correct). 1 point for C.

Question 7 - Same area [2 pts]

1 by 16: $2\times(1+16)=34$. 2 by 8: $2\times(2+8)=20$. 4 by 4: $2\times(4+4)=16$.

The 4 by 4 rectangle has the smallest perimeter, 16 units.

Scoring: 1 point for the three perimeters. 1 point for naming 4 by 4.

Question 8 - Garden fence cost [2 pts]

Perimeter: $2\times(12+9)=42$ feet.

Cost: $42\times\$4=\$168$.

Scoring: 1 point for the perimeter 42. 1 point for \$168.

Question 9 - Explain [2 pts]

No. A 3 by 5 rectangle has a perimeter of $2\times(3+5)=16$ and an area of $3\times5=15$. A 2 by 6

rectangle has a perimeter of $2 \times (2+6) = 16$ and an area of $2 \times 6 = 12$. The perimeters are equal, but the areas are 15 and 12.

Scoring: 1 point for saying he is not correct. 1 point for a valid pair with the matching perimeters and different areas. Accept any correct pair.

Total score

Total

20 points

Key facts behind this perimeter test answers

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 test answers

Score your test with the point values shown for each question. Then read the worked solution of every question where you lost points and note the method to review.