

Grade 3 Target J

Domain, Target, Standards, DOK, Vertical Alignments, Achievement Levels, Evidence Required, Vocabulary, Response Types, Materials, Attributes, Question Types, and Question Banks (Examples)

[Content Domain: Measurement and Data](#)

[Target J \[s\]: 3.MD.D Geometric measurements: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.](#)

[Standards included in Target A: 3.MD.D.8](#)

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Content Domain: Measurement and Data

Target J [s]: 3.MD.D Geometric measurements: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.

Standards included in Target A: 3.MD.D.8

3.MD.D Geometric measurements: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.

3.MD.D.8 Solve real-world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.

Vertical Alignment

Related Grade 2 standards

2.MD.A Measure and estimate lengths in standard units.

2.MD.A.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.

2.MD.B Relate addition and subtraction to length.

2.MD.B.5 Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.

Related Grade 4 Standards

4.MD.A Solve problems involving measurement and conversion of measurement.

4.MD.A.3. Apply the area and perimeter formulas for rectangles in real-world and mathematical problems. *For example, find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor.*

Achievement Level Descriptors

Level 1 Students should be able to find the perimeter of polygons when given all side lengths in problems

Level 2 Students should be able to solve for an unknown side length of a polygon when given the perimeter in problems.

Level 3 Students should be able to identify rectangles with the same perimeter and different areas or with the same area and different perimeters.

Level 4 No Descriptor

Evidence Required

1. The student solves real-world and mathematical problems involving finding the perimeter of a polygon given the side lengths.
2. The student distinguishes between area and perimeter of a rectangle.

Vocabulary

perimeter, quadrilateral, rectangle, area, polygon, plane figure

Response Types

Equation/Numeric

Materials

none

Attributes

none

Claim 1: Concepts and Procedures (DOK 1) Question Banks

Students can explain and apply mathematical concepts and carry out mathematical procedures with precision and fluency.

These pages were adapted from open source documents available on the Smarter Balanced Website: <http://www.smarterbalanced.org/assessments/development/> August 2016

3.MD.D.8 DOK 1

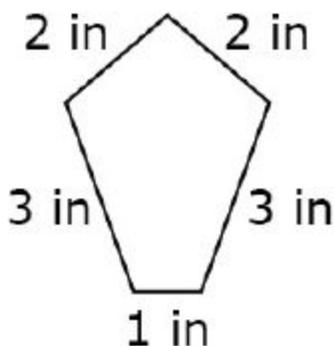
Solve real-world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.

Evidence Required

The student solves real-world and mathematical problems involving finding the perimeter of a polygon given the side lengths.

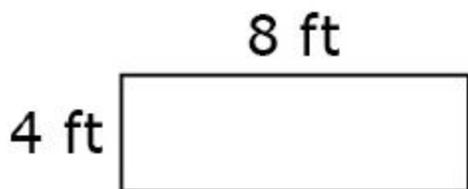
Question Type 1: The student is presented with a mathematical or real-world perimeter problem and is prompted to find the perimeter.

1. The length of each side of the polygon is shown.



Enter the perimeter, in inches, of the polygon.

2. Ms. Smith needs to find the perimeter of her rectangular garden. She wants to put a fence around her entire garden. Her garden measures 8 feet by 4 feet as shown.



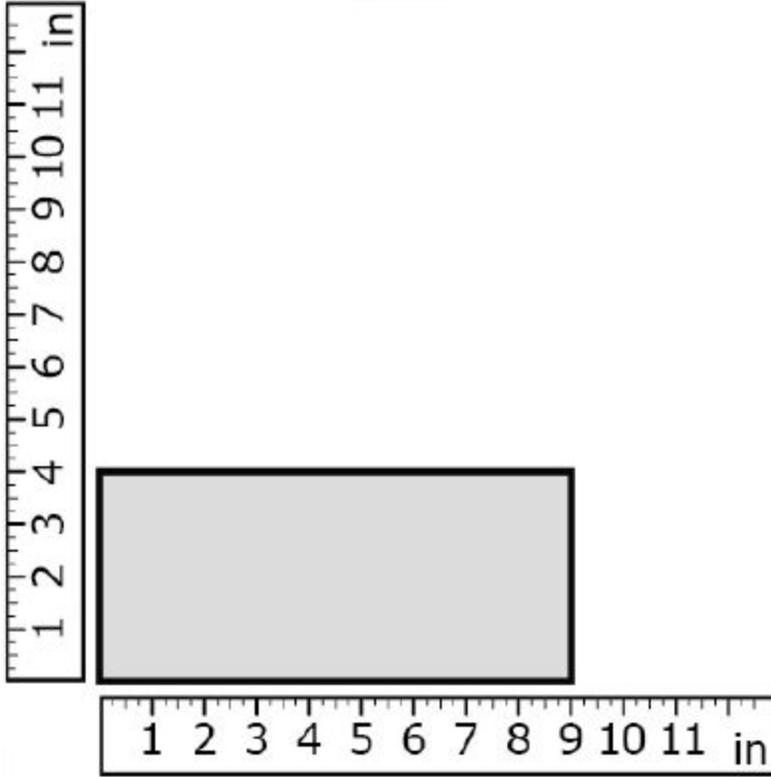
Enter the perimeter, in feet, of the garden.

Rubric: (1 point) The student correctly enters the perimeter of the shape (e.g., 11; 24).

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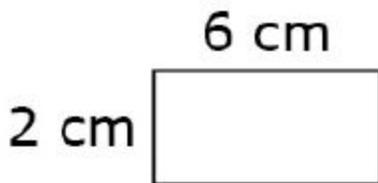
Response Type: Equation/Numeric

3. The rulers give the measurement for two sides of the rectangle.



Enter the perimeter, in inches, of the rectangle.

4. The rectangle shown has side lengths 6 centimeters and 2 centimeters.



Enter the perimeter, in centimeters, of the rectangle.

Rubric: (1 point) The student correctly enters the perimeter of the shape (e.g., 26; 16).

Response Type: Equation/Numeric

3.MD.D.8 DOK 1

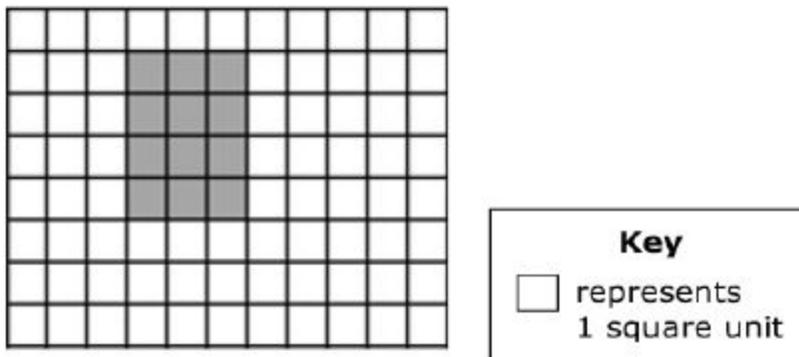
Solve real-world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.

Evidence Required

The student distinguishes between area and perimeter of a rectangle.

Question Type 1: The student is presented with a rectangle on a grid.

1. A shaded rectangle is shown on the grid.



Part A: What is the perimeter, in units, of the rectangle? Enter your answer in the first response box.

Part B: What is the area, in square units, of the rectangle? Enter your answer in the second response box.

Rubric: (2 points) The student correctly enters the perimeter and area of the rectangle (e.g., 14, 12). (1 point) The student correctly enters either the perimeter or area of the rectangle.

Response Type: Equation/Numeric